



TOYOTA

2002





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SCOPE OF THIS REPORT

The period covered in this report is fiscal year April 1, 2001 through March 31, 2002, and product model year 2002. If data are presented with different dates, this is clearly indicated. Corporate data, and data from our manufacturing companies, includes our Canadian operations. Toyota Canada Inc. produces a companion report to this report, which provides more detailed information regarding our environmental activities in Canada.

Last year, we published our first North American Environmental Report. In it we discussed the environmental aspects of our products and processes and outlined environmental action plans to address them. We committed to provide a progress update against our plans. This second report does that, and covers environmental issues pertinent to our activities in North America.

As in our first report, we have structured this report to replicate the life cycle of our business, from design to manufacture, and sales to end-of-life management.

This report was published in December 2002. For additional information about Toyota, please visit our website: www.toyota.com. This report can be accessed at www.toyota.com/environment. We listened to your comments and suggestions from our last report, and we have used them to improve this year's report. We would appreciate hearing from you again.



DEAR READER

We are proud to present our second annual Environmental Performance Report for Toyota North America. Toyota has had a long history of concern for the environment and is actively seeking ways to meet the growing transportation needs of society in ways that won't harm our Earth.

To do that, we carefully examine our products, business strategies and daily operations each year and set goals for improvement. This report outlines our progress during 2002 and many of the goals we've set for the future.

Here are some key highlights from each stage of our business:

DESIGN AND DEVELOPMENT

We improved our fuel efficiency by four-to-eight percent in nine vehicle configurations, and the joint U.S. Environmental Protection Agency (EPA)/U.S. Department of Energy (DOE) *2002 Model Year Fuel Economy Guide* ranked four 2002 Toyota models as class fuel economy leaders.

MANUFACTURING

We reduced our energy consumption per unit of production by seven percent, and our Indiana truck plant earned a "Governor's Award for Environmental Excellence" in Pollution Prevention.

SALES/USE

An estimated 94 percent of Toyota and Lexus vehicles sold in the U.S. were EPA-certified as Low Emission Vehicles (LEV) or better, and more than one-third were Ultra Low Emission Vehicles (ULEV). In addition, the Toyota Prius gas/electric hybrid sedan was the best-selling hybrid vehicle in America.

END-OF-LIFE/RECYCLING

For the first time, North American targets were set for continued management of Substances of Concern, including arsenic, hexavalent chrome, cadmium, mercury, and lead.



Toyota has had a long history of concern for the environment and is actively seeking ways to meet the growing transportation needs of society in ways that won't harm our Earth.

ENVIRONMENTAL CONTRIBUTIONS

Toyota was the major corporate sponsor of 2002 National Public Lands Day, the largest one-day volunteer cleanup of our nation's parks. We received a "Connie," a National Conservation Achievement Award from the National Wildlife Federation.

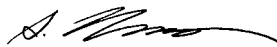
Overall, we've made good progress during the past year, but we realize there's much more to be done. Continuous improvement is a key principle of our company culture and we intend to make more significant progress in 2003 and beyond. In fact, our recently-released Global Vision 2010 initiative sets "concern for the earth" as one of our four top business priorities.

The 21st century will provide tremendous challenges for all of us. One of the biggest will be finding new ways for cars and the environment to peacefully co-exist. Toyota stands ready for that challenge. We look forward to working cooperatively with government agencies, communities, environmental groups, customers, suppliers, shareholders, our associates and the public to reduce the impact of the automobile on our earth. We can't do it alone, but we can do it together.

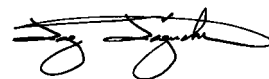
Sincerely,



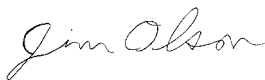
Dennis Cuneo, Senior Vice President, Toyota Motor Manufacturing North America, Inc.



Atsushi "Art" Niimi, President and Chief Executive Officer, Toyota Motor Manufacturing North America, Inc.



Toshiaki "Tag" Taguchi, President and Chief Executive Officer, Toyota Motor North America, Inc.



Jim Olson, Senior Vice President, Toyota Motor North America, Inc.



Jim Press, Executive Vice President and Chief Operating Officer, Toyota Motor Sales, U.S.A., Inc.



Yoshi Inaba, President and Chief Executive Officer, Toyota Motor Sales, U.S.A., Inc.



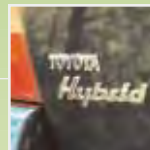
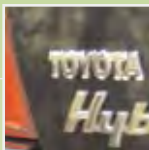
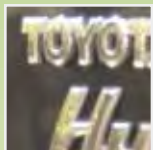
Tadashi "George" Yamashina, President, Toyota Technical Center, U.S.A., Inc.



Dave Baxter, Vice President, Toyota Technical Center, U.S.A., Inc.



The Toyota Leadership, from left to right: Dennis Cuneo, Art Niimi, Tag Taguchi, Jim Olson, Jim Press, Yoshi Inaba, George Yamashina, and Dave Baxter.



INTRODUCTION



“As a core philosophy, we continuously strive to better tune the automotive industry to the needs of the Earth and get as close as possible to sustainable development.”

– Toshiaki “Tag” Taguchi,
President & CEO, Toyota Motor North America

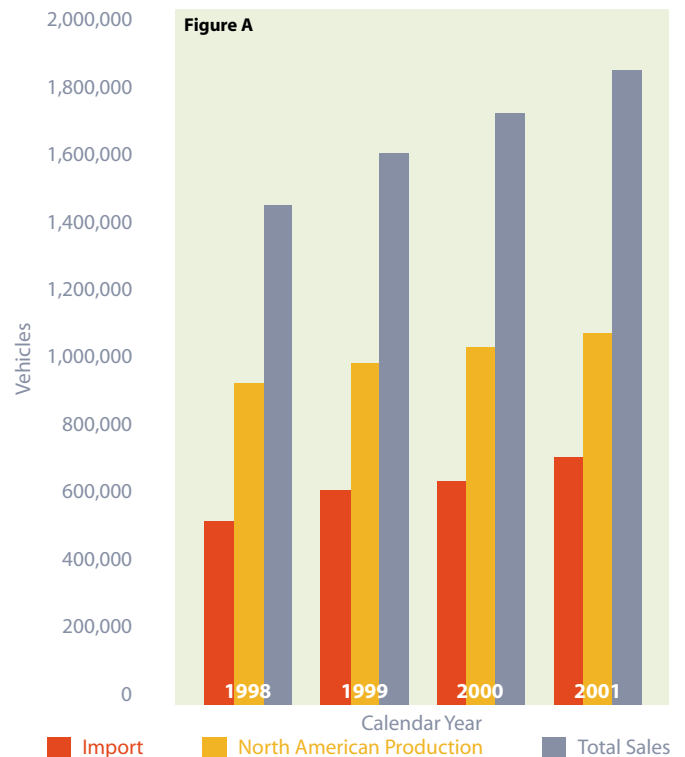
Toyota is the third largest automotive manufacturer in the world, and fourth largest in North America. In North America, we build and sell vehicles under the Toyota and Lexus brands. In 2001, Toyota set a best-ever sales record for the sixth year in a row, and Lexus was America’s top-selling luxury brand in both 2000 and 2001.

We are proud of our success in an increasingly competitive automobile marketplace and confident of our long-term sustainability as a company in North America. However, we measure our success in more than economic terms. Our growing customer base and sales are paralleled by our growing investment in capital projects, workers, suppliers and environmental protection in North America. We try to keep these issues in balance and continuously innovate with breakthrough technologies, including environmental technologies.

Since 1995, the majority of our vehicles sold in North America were produced in North America. In 2001, Toyota produced more than one million vehicles, as well as a variety of other related components, at its nine North American facilities located in Kentucky, West Virginia, Indiana, Missouri, California, British Columbia and Ontario. We purchased parts from over 500 North American automotive suppliers totaling \$14.99 billion in FY2002 (ending March 31, 2002). More than two-thirds of the company’s sales in the U.S. were vehicles manufactured in North America.

Toyota has invested significantly in North American operations and facilities. As of December 31, 2001, our cumulative investment in North America totalled \$13.3 billion. We directly employed more than 32,000 North American workers in 2001, more than half of which were directly involved in manufacturing.

North American Sales and Production



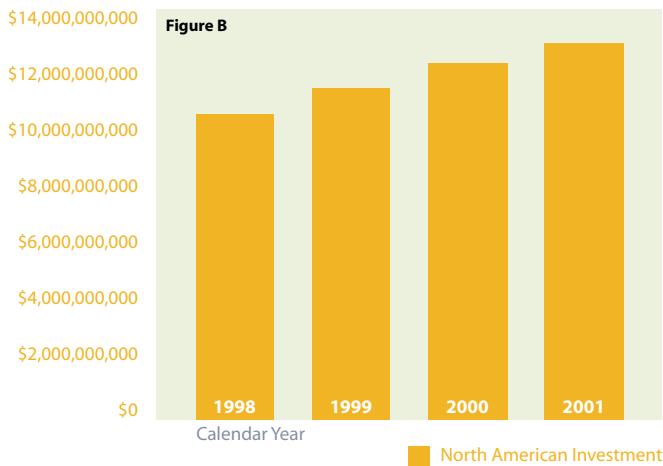
Main: Herbert Recinos installs drywall at Toyota’s sales headquarters expansion in Torrance, Calif. On average, 55 percent of the building materials used in the construction contain recycled content.

Inset: RAV4-EV electric vehicles serve as shuttles at Toyota’s sales headquarters, in Torrance, Calif.

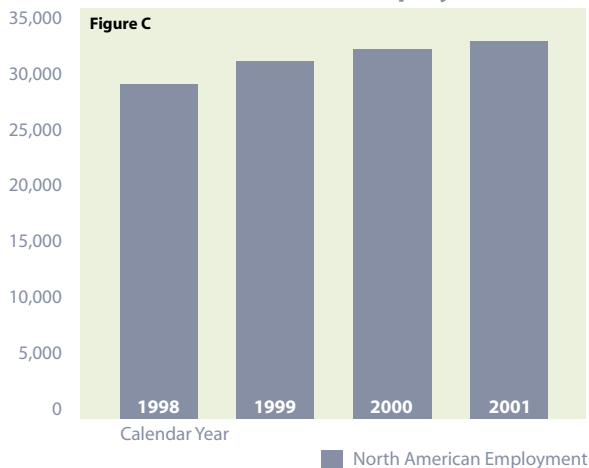


Toyota associates applaud as the 10 millionth North American-built vehicle, a Camry, rolls off the line, at the Georgetown, Ky., assembly plant, July 29, 2002.

North American Investment



North American Employment



TOYOTA'S NORTH AMERICAN AFFILIATE COMPANIES

Toyota Motor North America, Inc. is a holding company for Toyota's U.S. sales and manufacturing operating units. In addition, it coordinates the business activities for all of Toyota's North American companies.

Toyota Technical Center, U.S.A., Inc., headquartered in Ann Arbor, Mich., is a comprehensive research, design and development company.

Toyota Motor Manufacturing North America, Inc., headquartered in Erlanger, Ky., is the parent company of Toyota's manufacturing operations in the United States and Canada.

Toyota Motor Sales, U.S.A., Inc., headquartered in Torrance, Calif., is responsible for sales, marketing, distribution, service and parts support for Toyota and Lexus products in the continental United States.

Toyota Canada Inc., headquartered in Scarborough, Ontario, is the head office for all divisions of Toyota's sales, marketing, parts, service, Lexus and industrial equipment operations in Canada.

We directly employed more than 32,000 North American workers in 2001, more than half of whom were involved in manufacturing.





MANAGEMENT



Toyota has made care for the Earth one of four key components of its recently issued 2010 Global Vision.

HISTORICAL PERSPECTIVE

Toyota's concern for the environment stretches back to the late 1800s and some key principles espoused by Sakichi Toyoda, founder of Toyota's first business, a weaving loom company.

Sakichi was an avid inventor who prided himself on finding ways to help people be more efficient and avoid waste. After watching his mother's frustration with broken threads while weaving fabric, he set out to design a more efficient loom. In 1924, he succeeded in creating a revolutionary, fully automatic loom that shut itself down if it detected a broken thread. He later sold the patent for the loom and gave the money to his son, Kiichiro, to start an automobile company that became Toyota.

Sakichi passed on more than the legacy of his company to his son. He also taught him key principles that Kiichiro published for his company's workers in 1935. They were called the "**Toyoda Precepts**" and one of the five principles stated, "Be reverent and show gratitude for things great and small in thought and deed."

The Toyoda Precepts went through several revisions over the next five decades, and its basic tenets eventually helped form **Toyota's Guiding Principles** that were issued in 1992 and revised in 1997. The principles state how Toyota plans to contribute to society through manufacturing high-quality automobiles and related services.

One of the Guiding Principles focused on the company's responsibility to the environment, stating, "Dedicate ourselves to providing clean and safe products and to enhancing the quality of life everywhere through our activities."

To be more specific about its commitment to the environment, Toyota issued its global **Earth Charter** in 1992 and updated it in 2000. The Earth Charter spells out how the company plans to protect the environment at all stages of its operations, from product development and design to manufacturing, marketing and final disposal. It also calls for all Toyota companies around the world to develop specific environmental action plans and to report progress regularly.

To help employees, shareholders and the public understand the full importance of the company's environmental commitment, Toyota also has made care for the earth one of four key components of its recently issued **2010 Global Vision**. This document spells out the future direction of the company.

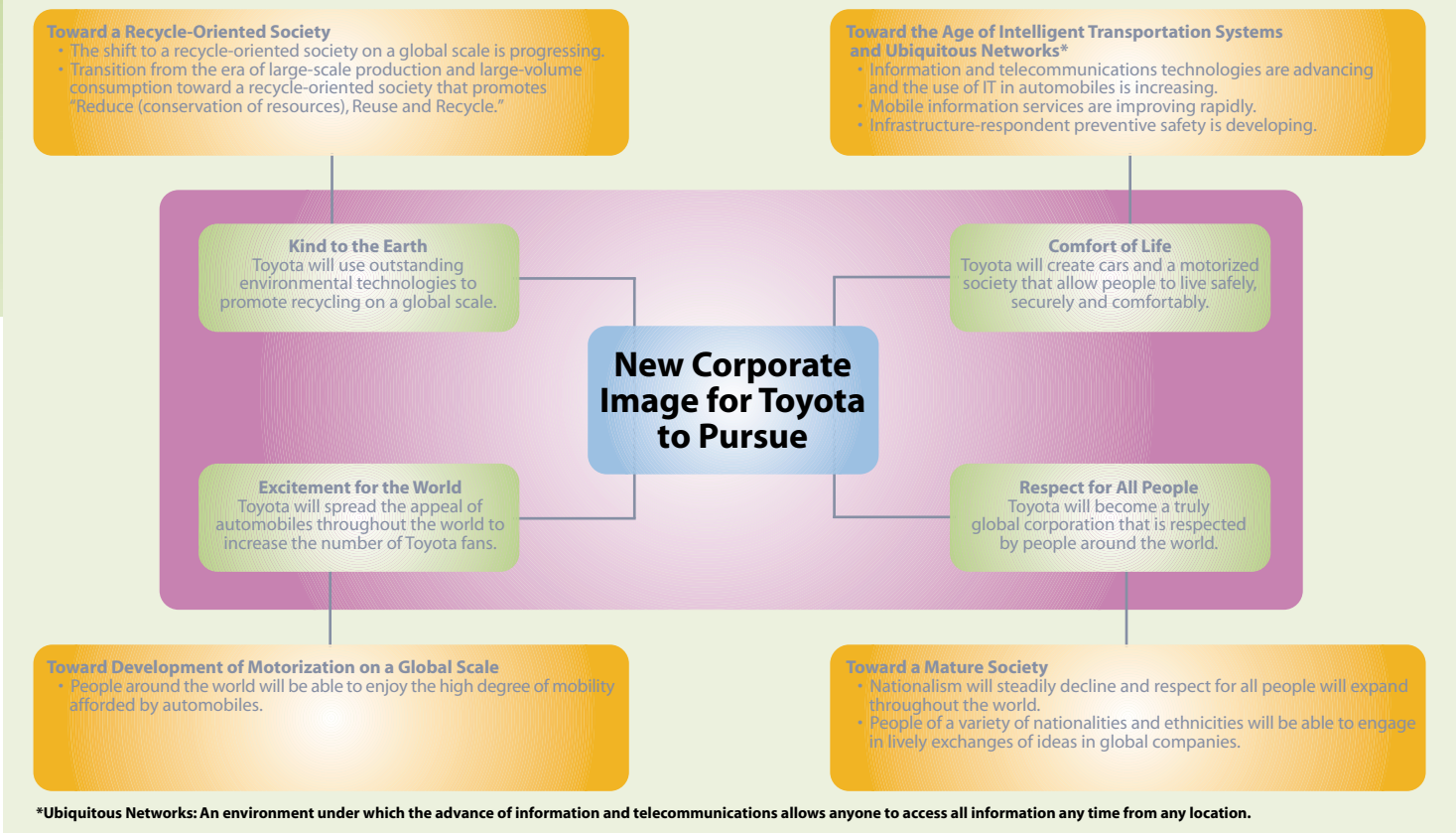
The following section discusses most of these major milestones in more detail. But it is important to remember that concern for the environment did not come as a result of these documents, but from people like Sakichi Toyoda and many other company leaders who followed him.

2010 GLOBAL VISION

In July 2002, Toyota adopted the *2010 Global Vision*. It contains a bold new business vision of the worldwide transition of Toyota into the age of more integrated information technology and infrastructure; of a society oriented towards natural resource conservation, a world with pervasive access to mobility and global respect for diversity (see Global Vision diagram on page 10). The Vision will be reflected in our future plans and policies including further environmental initiatives.

Figure D

2010 Global Vision



TOYOTA’S GUIDING PRINCIPLES

Since Toyota’s founding, our fundamental mission has been to contribute to society through creating value, primarily by manufacturing high-quality automobiles and providing related services. The company’s seven Guiding Principles, adopted in January 1992 and revised in April 1997, support that mission. Our managerial values and business methods, based on these core principles, are known collectively as The Toyota Way. The Toyota Way is an ideal, a standard and a guiding beacon for the people of the global Toyota. Its two key pillars are: “Continuous Improvement” and “Respect for People.” It defines how the people of Toyota perform and behave in order to deliver these values to customers, shareholders, associates, business partners and the global community.

GUIDING PRINCIPLES

ADOPTED JANUARY 1992, REVISED APRIL 1997

- Honor the language and spirit of the law of every nation, and undertake open and fair corporate activities to be a good corporate citizen around the world

- Respect the culture and customs of every nation, and contribute to economic and social development through corporate activities in local communities
- Dedicate ourselves to providing clean and safe products, and to enhancing the quality of life everywhere through our activities
- Create and develop advanced technologies and provide outstanding products and services that fulfill the needs of customers worldwide
- Foster a corporate culture that enhances individual creativity and teamwork value, while honoring mutual trust and respect between labor and management
- Pursue growth in harmony with the global community through innovative management
- Work with business partners in research and creation to achieve stable, long-term growth and mutual benefits, while keeping ourselves open to new partnerships

Since Toyota's founding, our fundamental mission has been to contribute to society through creating value.

TOYOTA'S EARTH CHARTER

The Toyota Earth Charter, published in April 2000, describes Toyota's Basic Policy and Action Guidelines regarding environmental improvements.

TOYOTA EARTH CHARTER (APRIL 2000)

I. BASIC POLICY

- 1. Contribute toward a prosperous 21st century society**
Aim for growth that is in harmony with the environment, and set a challenge to achieve zero emissions throughout all areas of business activities
- 2. Pursue environmental technologies**
Pursue all possible environmental technologies, developing and establishing new technologies to enable the environment and economy to coexist
- 3. Take action voluntarily**
Develop a voluntary improvement plan based on thorough, preventive measures and compliance with laws, that addresses environmental issues on global, national and regional scales, while promoting continuous implementation
- 4. Work 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 and related companies and industries



II. ACTION GUIDELINES

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

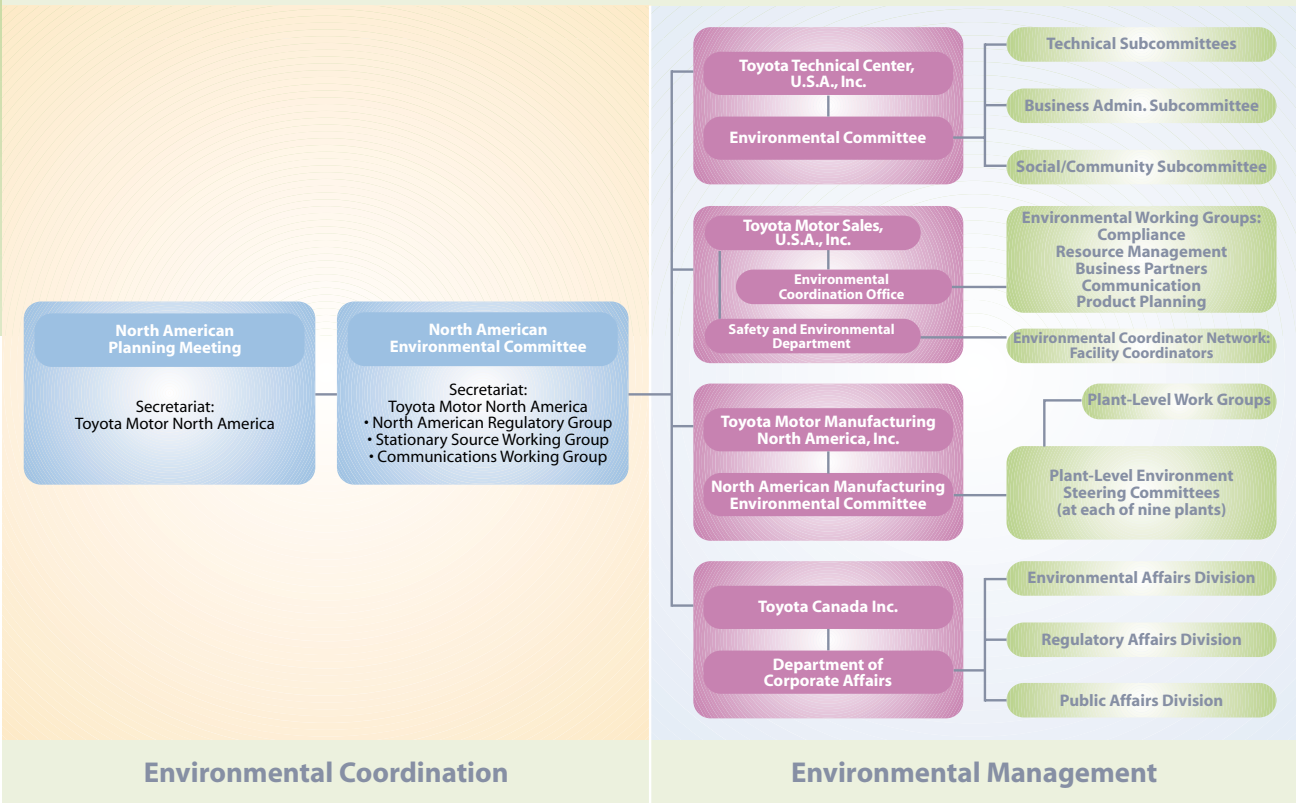
ENVIRONMENTAL MANAGEMENT IN NORTH AMERICA

Responsibility for environmental management, as well as the implementation of environmental action plans, generally rests with each Toyota North American company. In addition, a unified group called the North American Environmental Committee (NAEC) serves as a high-level coordinating forum for environmental issues across North America. In some instances, issues and recommendations requiring input or approval are brought before the North American Planning Meeting (NAPM), which comprises Toyota's most senior executives.

On behalf of Toyota Motor Manufacturing, Indiana, Inc., Vice President Norm Bafunno (center) accepts the 2002 Governor's Award for Environmental Excellence in Pollution Prevention from Lori F. Kaplan, Commissioner, Indiana Department of Environmental Management and Frank O'Bannon, Governor of Indiana.

Figure E

Environmental Coordination and Management in North America



NORTH AMERICAN ENVIRONMENTAL COMMITTEE (NAEC)

The NAEC comprises one top executive from each North American company, as well as key executive coordinators from Toyota Motor Corporation. This core group serves as the steering committee for a broader, full committee membership of executives, managers and environmental specialists from each company.

The NAEC meets quarterly to discuss environmental activities, ensure consistency among affiliates and identify key areas where more detailed collaboration/coordination is needed. Specifically, the NAEC: 1) articulates Toyota’s North American environmental strategy; 2) creates greater visibility and focus on key strategic issues; 3) communicates this uniform strategy to our parent company, external stakeholders (government regulators and NGOs) and the American public; and 4) coordinates environmental decision-making and inter-company information exchange and collaboration.

Within the NAEC are three standing working groups, with membership from all of our North American companies, chaired or co-chaired by individuals appointed by

the NAEC. These working groups meet quarterly, or as needed, and serve as forums for information exchange and coordination. In addition, ad-hoc teams are formed to address specific issues.

ENVIRONMENTAL IMPACT OF THE AUTOMOBILE ACROSS THE LIFE CYCLE

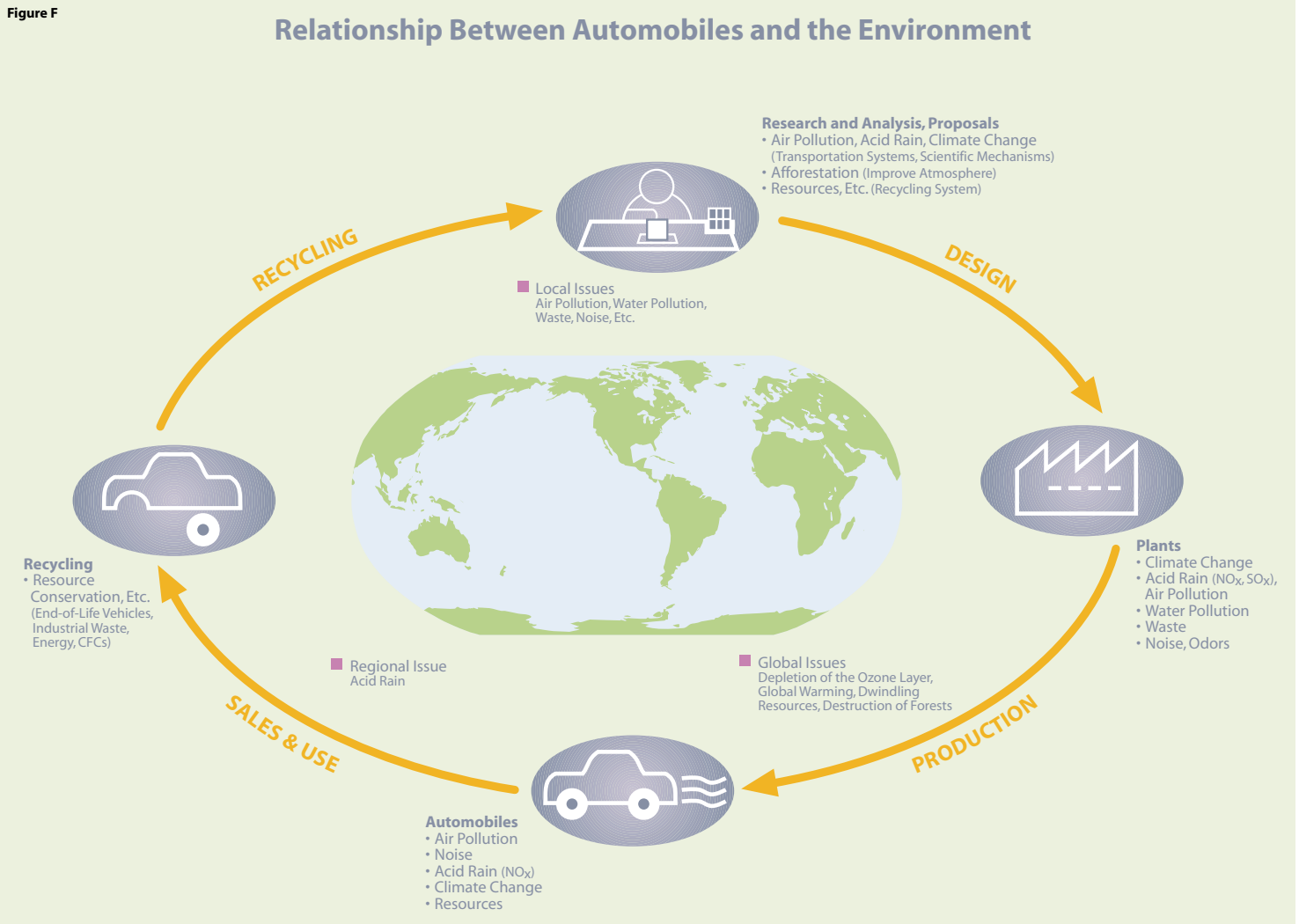
Automobiles impact the environment during all stages of their life cycle, from the extraction of raw materials to parts manufacturing, vehicle assembly, delivery logistics, use by consumers and end-of-life management (see Figure F).

This report is arranged so as to correspond to these life cycle stages:

- Life Cycle I: Development and Design
- Life Cycle II: Manufacturing
- Life Cycle III: Sales, Distribution and Service
- Life Cycle IV: Recycling and End-of-Life Vehicles

We also have a section on Toyota’s environmental contributions to society.

We're committed to developing vehicles with efficient fuel consumption and clean emissions that can be easily recycled and have a minimal impact on the environment.





Most environmental impacts result from the use of automobiles, as opposed to manufacturing or distributing them. At Toyota, we're committed to developing vehicles with efficient fuel consumption and clean emissions at reasonable cost, designing them to be easily recycled and devising production methods that have minimum impact on the environment. We also are developing a number of new technologies that will help us create a true eco-car for tomorrow, while still meeting our customers' needs and desires.

TOYOTA'S NORTH AMERICAN ENVIRONMENTAL ACTION PLAN

Toyota Motor Corporation has developed a "Third Toyota Environmental Action Plan" covering the period FY2001 through FY2005. This over-arching plan forms the foun-

ation for each Toyota company worldwide to develop its own specific goals and action plans. A summary of our **FY2001-2005 North American Environmental Action Plan** and implementation status is shown on the next page.

This Environmental Action Plan displays our five-year goals, our targets to achieve these goals as well as an indication of whether we have achieved our targets (⊙), are on track to meet them (O), or have missed them (X). Detail is provided in the body of this report.

Although information in the action plan and this report is arranged by life cycle, several issues cut across more than one life cycle stage. The common goal of waste reduction, for example, is being managed in manufacturing by working to reduce hazardous waste sent from manufacturing plants to landfills; and in sales by implementing a range of programs directed towards reducing waste and packaging at distribution centers. Another common goal, energy reduction, is being tackled at design, with the introduction of more fuel-efficient vehicles; in manufacturing by reducing energy usage per unit of production; and in sales and distribution by establishing baseline information about our energy use in these functions.



Celebrating Arbor Day in Nebraska City, Neb., are (from left) Sooah Yoo, 2002 Arbor Day national poster contest winner; and Veronica Pollard, Toyota Motor North America (TMNA) group vice president. TMA sponsors the annual poster contest to promote environmental consciousness among America's youth.

Figure G

Consolidated Summary of North American Five-Year Action Plan*

FY2005 Action Plan Goals	Targets	Status ⊙ Achieved ○ On Track X Missed	Page Reference
Life Cycle I: Development and Design			
Fuel Efficiency • Achieve Top Levels of Fuel Efficiency in All Vehicle Classes	• Exceed CAFE requirements for passengers and light-duty trucks	⊙	See pg. 19
Emission Reductions • Promote Emission Reductions	• Meet Tier 2 and LEV II emission requirements	○	See pg. 20
Clean Energy Vehicles • Introduce Cleaner Energy Vehicles	• Introduce to market additional new hybrid electric vehicles by 2005 • Demonstrate fuel cell technology by evaluating prototype beginning in 2001	○ ⊙	See pg. 22
Life Cycle II: Manufacturing			
Energy • Energy Reduction	• Reduce total energy usage by 15 percent per unit of production from the base year 2000 by FY2005 thus resulting in a 15 percent decrease in CO ₂	○	See pg. 25
Substances of Concern • Develop extensive reduction strategies to reduce emissions of concern	• Reduce body-painting emissions of VOCs to less than 30 g/m ² for all paint shops • Reduce toxic chemicals emitted to air to 1.0 Kg/vehicle or less for entire plant • Continue R&D activities aimed at eliminating all VOCs and toxic chemicals from coolants and cutting oils used in unit plants	○ ○ ○	See pg. 27 See pg. 28 See pg. 28
Waste • Reduce waste and promote resource conservation activities	• Reduce hazardous waste disposal to landfills by 95 percent from base year 1999 and continue R&D activities aimed at reducing the landfill of other wastes, where possible	○	See pg. 30
Water • Implement aggressive plans to reduce consumption of water	• Reduce total water usage by 15 percent per unit of production from 2000 base year by end of FY2005	○	See pg. 30
Environmental Management Systems • Establish Green Supplier Guidelines	• Issue Green Supplier purchasing guidelines by June 2000 • Certify Key Suppliers to ISO 14001 by December 2003 • Comply with Chemical Ban List/Environmental Data Sheet	⊙ ○ ○	See pg. 31 See pg. 31 See pg. 31
Life Cycle III: Sales, Distribution and Service			
Environmental Management Systems • Establish an Environmental Management System	• ISO 14001 Certification at all parts and vehicle distribution centers by FY2005	○	See pg. 33
Hazardous Material • Promote excellence in handling and transporting hazardous materials	• Maintain 100 percent compliance with all applicable hazardous material regulations on an ongoing basis, through annual training and facility audits on a company-wide basis	⊙	See pg. 34
Waste • Reduce Waste and Conserve Resources	• Implement a nationwide waste-tracking program • Set nationwide waste-reduction targets • Implement a returnable-packaging program at parts distribution centers where volume warrants • Increase returnable-packaging and direct shipment programs for vehicle distribution centers where practical	○ ○ ⊙ ⊙	See pg. 35 See pg. 35 See pg. 35 See pg. 36
Energy • Reduce Energy Use • Reduce Greenhouse Gases	• Establish energy usage database • Compile greenhouse gas inventory by FY2004	○ ○	See pg. 37 See pg. 37
Dealers • Promote Environmental Responsibility Among Dealers	• Launch the Toyota Environmental Assistance Network Online • Add enhanced features to the Environmental Assistance Network	⊙ ⊙	See pg. 38 See pg. 39
Other • Promote Greener Building Construction and Maintenance Operations	• Achieve LEED™ certification for the sales headquarters South Campus expansion buildings by the end of 2003	○	See pg. 39
Life Cycle IV: Recycling End-of-Life Vehicles			
Substances of Concern • Manage Substances of Concern	• Gather North American baseline data for selected SOCs • Develop North American SOC strategy for beyond 2002	○ ○	See pg. 41 See pg. 42
Vehicle Recyclability • Develop Recycling Designs and Promote Expanded Use of Recycled Materials	• Incorporate material and design strategies for increased vehicle recyclability	○	See pg. 43
Toyota's Environmental Contributions			
Environmental Communication • Enhance environmental communication activities in each region/country	• Promote environmental communication with community and key organizations • Enhance environmental communication activities	○ ○	See pg. 45 See pg. 46

*The status indicated refers, in some cases, to progress towards achieving the five-year goal. In other cases, the status refers to an annual target in support of the five-year goal. Details are provided in the body of the report.



DEVELOPMENT



“We can no longer afford to ignore the signs of global warming and the fact that the consumption of gasoline and other fossil fuels is on the rise. Environmentally friendly cars will soon cease to be an option ... they will become a necessity.”

– Fujio Cho
President, Toyota Motor Corporation

Toyota is committed to designing and developing products that meet the needs of our customers and the environment. This commitment is not limited to our hybrid technology, but extends to our pursuit of excellence on fuel efficiency, emissions and development of advanced technology vehicles. At the same time, our engineers put significant effort into researching new technologies to continuously improve the environmental performance of products we bring to the marketplace.

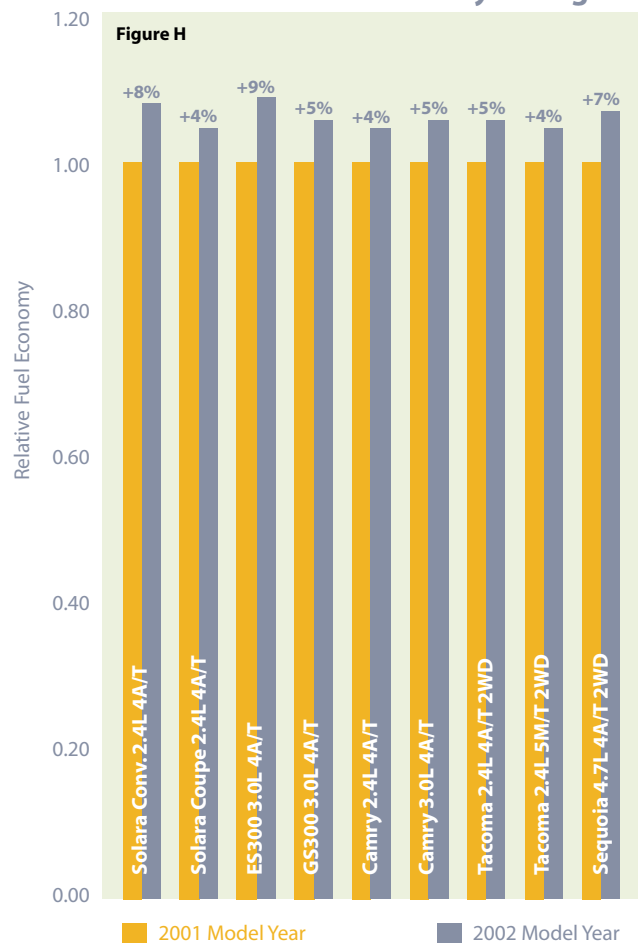
GOAL:

ACHIEVE TOP LEVELS OF FUEL EFFICIENCY IN ALL VEHICLE CLASSES

Toyota has historically been a leader in designing and producing fuel-efficient vehicles, and we remain so even as we have grown to become the fourth largest auto maker in the U.S., offering a full line-up of trucks and the number one selling U.S. luxury car brand — Lexus.

Consistent with the Toyota philosophy of continuous improvement, our engineers seek to improve vehicle fuel efficiency with the launch of each new generation of vehicles. Among the 60 different model and powertrain configurations Toyota sold in the 2002 model year, we improved the EPA-rated fuel economy on nine (Figure H). The fuel economy of 48 configurations remained the same; however, three vehicle configurations had lower fuel economy than the previous model year. As we work to improve fuel efficiency, we also must provide our customers with the performance, size, and features they demand. This requires a delicate, and often difficult balancing of consumer and environmental needs.

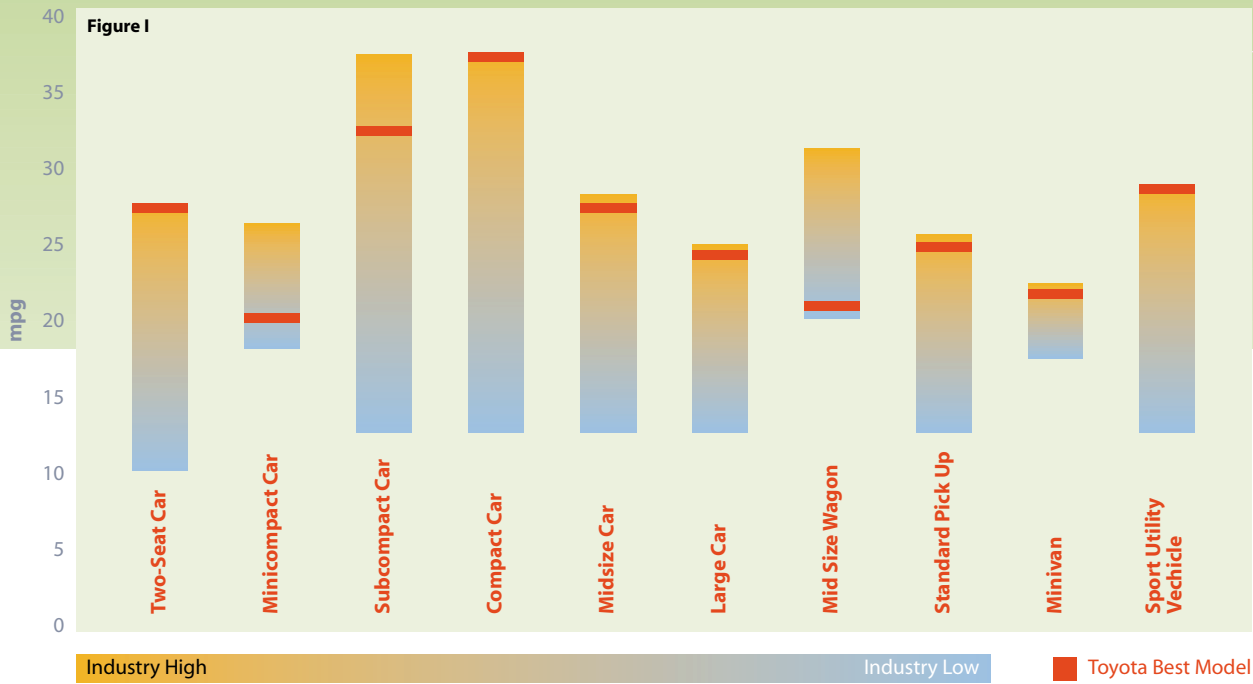
2001-2002 Fuel Economy Change



NOTE: Data are based on EPA adjusted combined fuel economy rating. Three 2002 model year vehicle configurations – Tacoma 2.7L 5M/T 4WD, Tacoma 3.4L 4A/T 4WD and 4Runner 3.4L 4A/T 2WD – had lower fuel economy ratings than their 2001 model year counterparts.

Main: Justin Ward, engineer at the Toyota Technical Center, Sacramento, Calif., calibrates his equipment in preparation for continued evaluation of Toyota's latest fuel cell hybrid vehicle, the FCHV-4. Toyota participates in the California Fuel Cell Partnership Program, evaluating two FCHV-4 vehicles in real-world driving conditions, providing valuable insight for ongoing development and improvement of our fuel cell vehicle technology.

Toyota Gasoline Vehicles Are Among the Most Fuel Efficient in Their Class



NOTES: Data and classes are based on EPA Adjusted Combined Fuel Economy ratings from the *Model Year 2002 Fuel Economy Guide* available at www.fueleconomy.gov. The chart shows only those classes where Toyota offers products. The minicompact car model shown is the Lexus SC430. The mid-size wagon shown is the Lexus RX300, which generally competes with vehicles classified by other manufacturers as SUVs.

On a class-by-class basis, Toyota offers conventional gasoline-powered vehicles that typically rank among the most fuel-efficient in their class (Figure I). The **2002 Model Year Fuel Economy Guide**, published jointly by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE), rated four 2002 Toyota models — Prius, RAV4 2WD manual transmission, RAV4 2WD automatic transmission and Tacoma 2WD automatic transmission — as class fuel economy leaders based on EPA fuel economy mileage estimates. In addition, we are the leader in U.S. market-share of gasoline-electric hybrid vehicles. Our engineers improved the fuel efficiency of conventional gasoline-powered vehicles by using variable valve timing, multi-valve cylinder heads, advanced automatic transmissions, reduced vehicle weight and lower aerodynamic drag coefficients (Cd), among others. For example, we have used multi-valve cylinder heads on all our U.S. products since 1996. Additionally, two-thirds of 2002 model year Toyota car models and all 2002 model year Lexus car models use variable valve timing.

TARGET:
EXCEED CAFE REQUIREMENTS FOR PASSENGER CARS AND LIGHT-DUTY TRUCKS

For 2002 model year, as in all previous model years, we will meet our target to exceed Corporate Average Fuel Economy (CAFE) requirements for both passenger cars

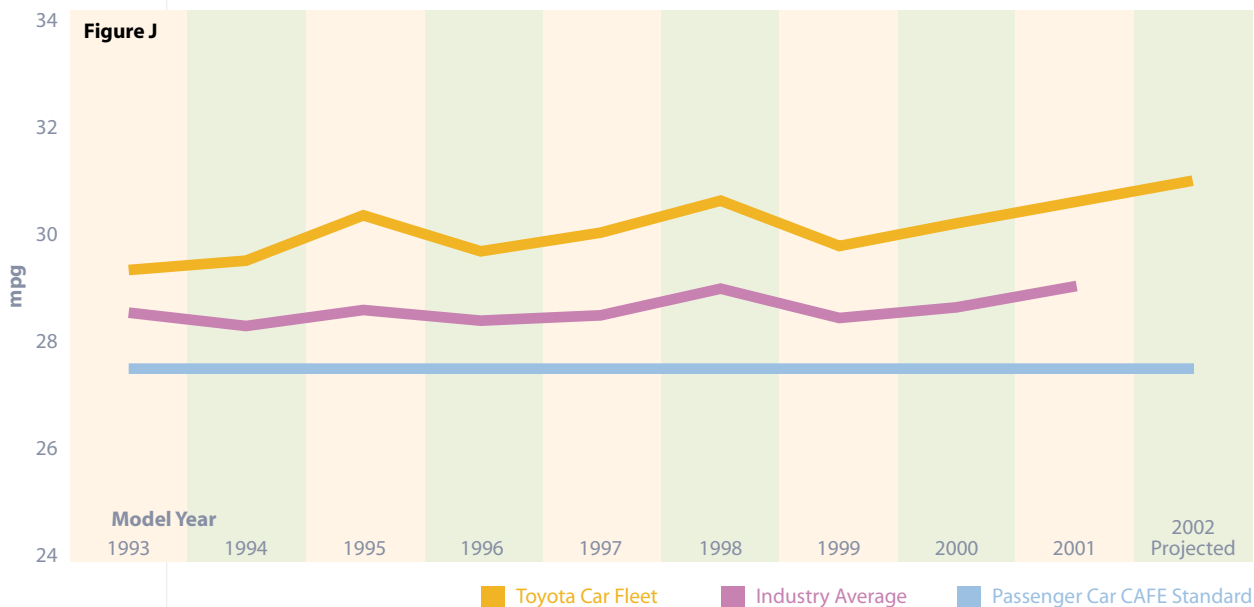
and light-duty trucks (Figures J and K). While our passenger-car CAFE has consistently improved over the past three model years, our truck CAFE has leveled off after a period of decline. This reflects the growing demand by consumers over the past decade for larger trucks. However, both our car and truck CAFE performance continues to exceed that of the industry as a whole. Although motor vehicle CO₂ is not regulated, we also have included a historical view of our car and truck CO₂ emissions per kilometer (Figures L and M). Toyota vehicles emit less CO₂ per kilometer than the industry average.

GOAL:
PROMOTE EMISSIONS REDUCTION

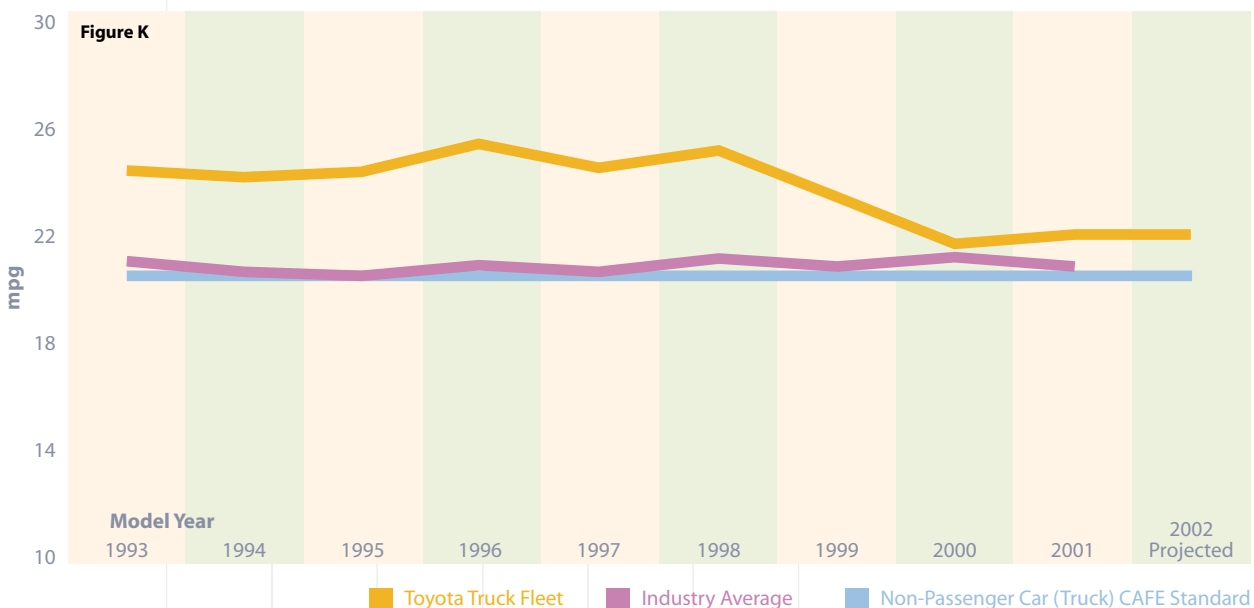
During normal operations, automobiles emit many compounds that impact the environment, including carbon dioxide (CO₂), carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NO_x) and non-methane organic gas (NMOG). Regulatory organizations around the world, including the EPA and the California Air Resources Board (CARB), have challenged automakers to reduce levels of harmful emissions.

On a class-by-class basis, Toyota offers conventional gasoline-powered vehicles that typically rank among the most fuel-efficient in their class.

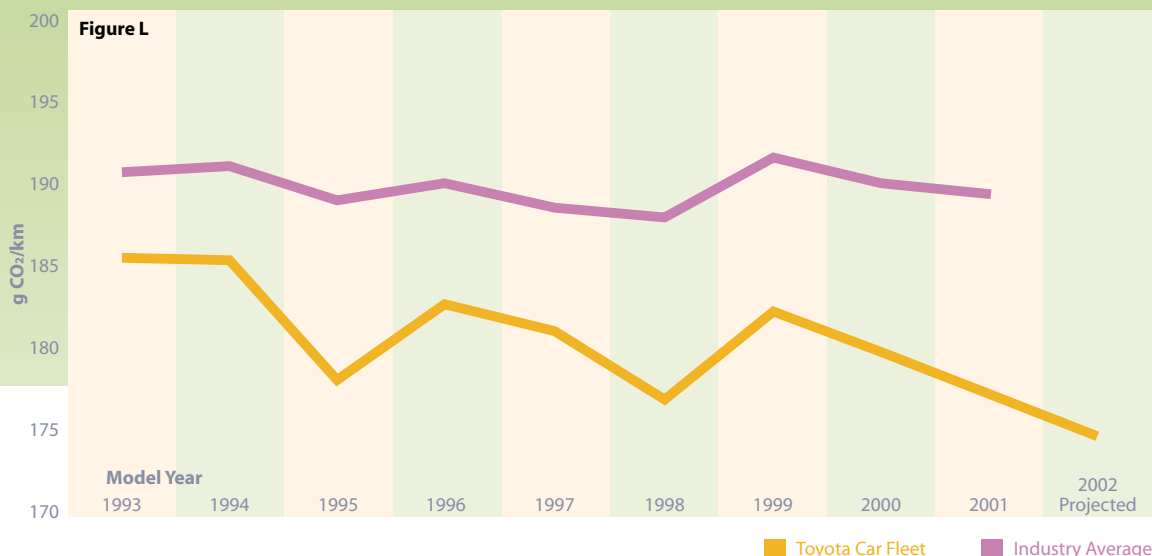
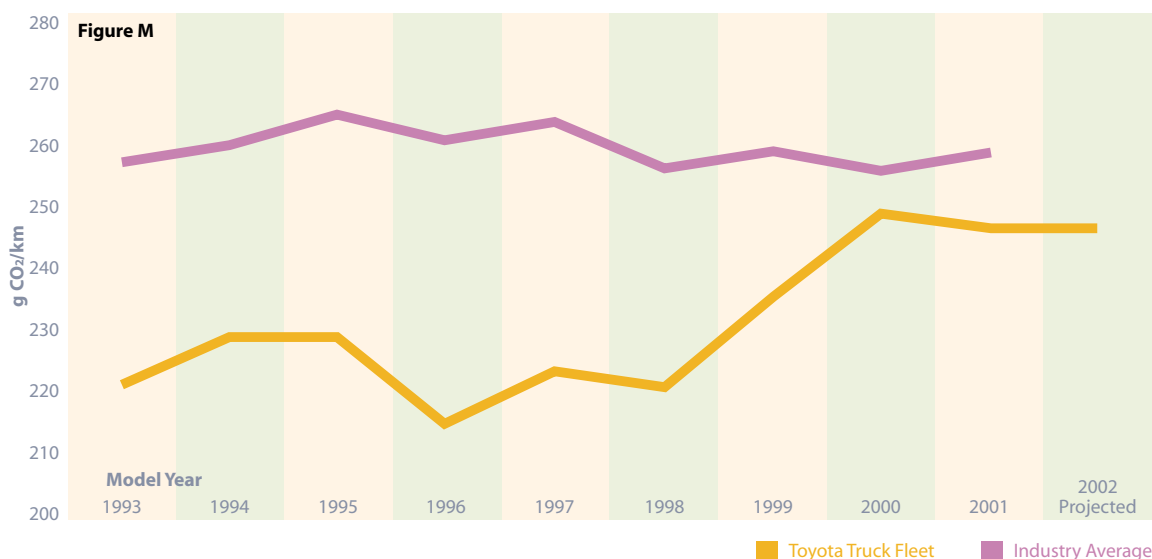
Toyota Passenger Car 10-Year CAFE History



Toyota Truck 10-Year CAFE History



NOTE: 2002MY Toyota data are projected based on mid-model year CAFE estimates reported to the National Highway Traffic Safety Administration. 2002MY industry estimate not available prior to publication deadline.

Toyota Annual Passenger Car CO₂ per KilometerToyota Annual Truck CO₂ per Kilometer

NOTE: Grams of CO₂/km is not regulated in North America, but is being reported here as a reference. It is calculated based upon CAFE levels (miles per gallon) reported by Toyota to the National Highway Traffic Safety Administration, converted to CO₂/km. 2002MY industry estimate not available prior to publication deadline.

TARGET: MEET TIER 2 AND LEV II EMISSION REQUIREMENTS

By 2004MY, U.S. vehicles must meet stringent Tier 2 and LEV II vehicle emission requirements of the EPA and CARB, respectively. Toyota is on course to meet these requirements ahead of schedule, on a fleet average basis. Toward these objectives, we can report the following for the 2002 model year:

- An estimated 94 percent of Toyota and Lexus vehicles sold were EPA-certified as Low Emission Vehicles (LEV) or better. More than one-third of Toyota and Lexus vehicles sold were certified as Ultra Low Emission Vehicles (ULEV). For example:

- > All 2002 Lexus car V-8 engines, used in the LS430, SC430 and GS430, are rated as ULEVs. Additionally, the 2002 Lexus ES300 with a V-6 engine is certified as a ULEV
- > The Toyota Sequoia – the largest vehicle ever offered by Toyota in America – and the popular four-cylinder Toyota Camry are both ULEV certified in their respective vehicle categories
- > The Toyota Prius Hybrid is certified as a Super Ultra Low Emission Vehicle (SULEV) in California – the Prius is up to 84 percent cleaner for harmful emissions than the average new car

For further information about emissions certification, see www.epa.gov/autoemissions.

Figure N

2002 Model Year Product Data for Selected Models

Model	Engine	Transmission	EPA Fuel Economy ²		CO ₂ ³ (g/km)	Emission Standard		Notes
			City (mpg)	Highway (mpg)		Federal	California	
Toyota Prius 	1.5 L	See Note 4	52	45	093.9	ULEV	SULEV	2002 Model Year Fuel Economy Guide leader among Compact Cars
Lexus IS300 	3.0 L	5M/T	18	25	219.7	LEV	LEV	New 5M/T transmission offering for 2002
Toyota RAV4 2WD 	2.0 L	5M/T	25	31	169.6	LEV	LEV	2002 Model Year Fuel Economy Guide leader among M/T SUVs
		4A/T	24	29	179.2	LEV	LEV	2002 Model Year Fuel Economy Guide leader among A/T SUVs
Toyota Tacoma 2WD 	2.4 L	4A/T	22	25	200.4	LEV	LEV	2002 Model Year Fuel Economy Guide leader among A/T Standard Pickup Trucks
Toyota Camry & Solara 	2.4 L	4A/T	23	32	174.0	ULEV	ULEV	New 2.4L 4-cyl. engine offering
	2.4 L	5M/T	24	33	168.6	ULEV	ULEV	Camry redesigned for 2002
Lexus SC430 	4.3 L	SAT	18	23	231.3	ULEV	ULEV	New model for 2002
Lexus ES300 	3.0 L	5A/T	21	29	194.7	ULEV	ULEV	Redesigned for 2002

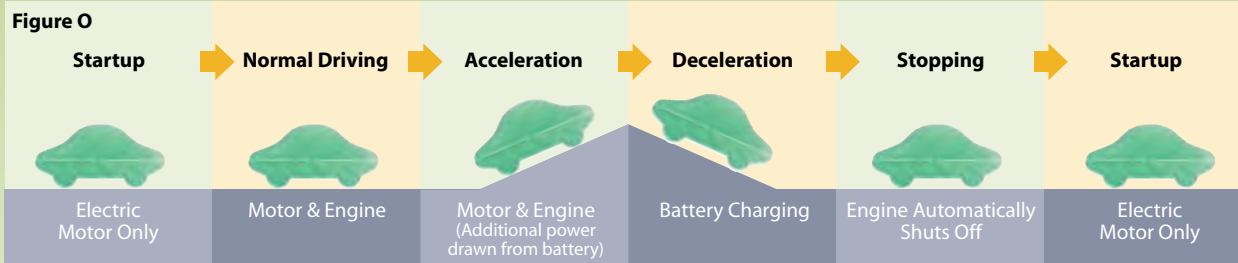
Certification Standard	Vehicle Category	NMOG (g/mile)	CO (g/mile)	NO _x (g/mile)	HCOH (g/mile)
ZEV	ALL	0.000	0.0	0.0	0.000
SULEV	Passenger Car & LDT1	0.010	1.0	0.02	0.004
ULEV	Passenger Car & LDT1	0.040	1.7	0.20	0.008
	MDT	0.117	5.0	0.60	0.011
LEV	Passenger Car & LDT1	0.075	3.4	0.20	0.015
	LDT2	0.100	4.4	0.40	0.018
	MDV	0.195	5.0	0.60	0.022
TLEV	Passenger Car & LDT1	0.125	3.4	0.40	0.015
TIER1	MDV	0.390	5.0	1.10	0.022

Notes:

1. This chart shows 2002 models that are new, redesigned or have new powertrain options; and models that were identified in the *2002 Model Year Fuel Economy Guide* as class fuel economy leaders. A similar chart showing a complete listing of all Toyota and Lexus brand models can be found at www.toyota.com/about/environment.
2. EPA fuel economy estimates are determined by averaging numbers gathered through tests conducted by EPA. Vehicles are tested in a controlled setting, and the results are adjusted to suit real-world driving conditions.
3. Grams of CO₂/km is not regulated in North America, but is being reported here as a reference. It is calculated based upon unadjusted, combined fuel economy measurements as reported by Toyota to the National Highway Traffic Safety Administration.
4. Prius does not have a traditional automatic or manual transmission.

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Operation of the Toyota Hybrid System



GOAL:

INTRODUCE CLEANER ENERGY VEHICLES

Along with making design improvements in gasoline-powered vehicles that will lessen their environmental impact, we believe new technologies offer the greatest promise for the future. The resources Toyota has dedicated to these endeavors, and their resulting successes, demonstrate our concern for the environment.

TARGET:

INTRODUCE ADDITIONAL NEW HYBRID ELECTRIC VEHICLES BY 2005

Toyota has been at the forefront of gasoline-electric hybrid powertrain technology — an efficient, powerful, gasoline-fueled internal combustion engine combined with a quiet electric drive system. Toyota was first to mass-produce and globally market a practical, competitively-priced, four-door hybrid passenger car, the Prius, which we began selling in North America in July 2000. Prius combines Toyota's highly sophisticated gasoline-electric hybrid powertrain technology with familiar vehicle conveniences. It never needs to be plugged in for charging and has an EPA-estimated fuel economy rating of 52 mpg in the city, 45 mpg on the highway and 48 mpg combined. To date, over 100,000 Prius model hybrids have been sold globally, with sales of over 35,000 in the United States alone. Prius was the first automobile to qualify for the Internal Revenue Service's tax deduction of up to \$2,000 for hybrid vehicles.

The current Toyota Hybrid System (THS) is technologically superior to competitor systems in a variety of ways. Most notably, the THS architecture allows independent electric or internal combustion propulsion, or simultaneous combinations of both gasoline and electric power.

The Prius hybrid system is much cleaner for emissions than current competitive systems, because other systems

consist of a continuously operating gasoline engine intermittently aided by the electrical motor. The Prius is certified to California's Super Ultra Low Emission Vehicle (SULEV) standards, while most competitor models only achieve Ultra Low Emission Vehicles (ULEV) certification. The SULEV standard means nearly 10 times fewer smog-forming emissions over 120,000 miles of vehicle operation than ULEV.

Toyota is excited about the potential for hybrid technology's contributions to a cleaner world. We are committed to improving the Toyota Hybrid System's performance. Soon we will be using this technology across a greater variety of models, including fuel cell vehicles.

TARGET:

DEMONSTRATE FUEL CELL TECHNOLOGY BY EVALUATING PROTOTYPE BEGINNING IN 2001

Toyota has long been at the forefront of automotive fuel cell technology development and application. Unlike most of our competitors, Toyota began developing its own fuel cell system in 1992, and first demonstrated a running prototype in October 1996. Additionally, Toyota has led other automakers in developing its fuel cell vehicle using hybrid techniques to capture motion energy, for even greater efficiency. We are confident that this emerging technology holds great promise for reducing pollutants and the world's dependence on fossil fuels.

Since 2000, Toyota has been a member of the California Fuel Cell Partnership, an organization of industry and government agencies, whose goal is to promote fuel cell vehicle awareness by demonstrating both the technology and the infrastructure's viability. We began testing our Fuel Cell Hybrid Vehicle (FCHV-4) on public roads in June 2001. So far, FCHV-4s have accumulated over 110,000 km, providing valuable insight toward the commercialization of this technology. With significant

Toyota was first to mass-produce and globally market a practical, competitively-priced, four-door hybrid passenger car, the Prius.

advancements in Toyota's fuel cell development program already achieved, we announced in July 2002 that we will begin supplying limited commercial fuel cell vehicles to our first U.S. customers around the end of 2002.

Recognizing that there is no single solution to the environmental impacts of today's transportation needs, we are working with others in the search for new technologies and solutions. For example, Toyota is working to develop cleaner burning fuels with ExxonMobil, and with other automobile manufacturers on the development and diffusion of advanced technology vehicles.

In addition, we continue to explore the market potential for shared-use and so-called "station car programs" that combine mass transit with environmentally advanced commuter vehicles. In California, Toyota is a partner in the largest station car project in the United States — ZEV•NET (Zero Emission Vehicle Network Enabled Transport) (see adjacent story).

At the same time, we are testing power-generation methods, such as stationary fuel cells, to reduce the environmental impact associated with charging electric vehicles. Although we believe new technology will eventually surpass electric vehicle (EV) systems, Toyota continues to offer its RAV4-EV to commercial fleets and California retail customers. There are now over 1,000 RAV4-EVs in operation on U.S. highways.

ZEV•NET: AN ENVIRONMENTALLY CONSCIOUS TRANSPORTATION ALTERNATIVE

Toyota has developed an "environmentally conscious transportation alternative" in conjunction with the National Fuel Cell Research Center and the Institute of Transportation Studies at the University of California, Irvine.

The ZEV•NET program offers commuters in Southern California zero- and low-emissions vehicles to get from a rail station to their place of employment. Once there, fellow employees share the cars for short trips during business hours. At the end of the day, the vehicles are driven back to the rail station, where other commuters can use them for the trip home. Global positioning system (GPS) technology installed in each vehicle, together with a web-based reservation system, makes efficient sharing possible. ZEV•NET helps eliminate the pollution associated with a one-person-per-car freeway commute.

The program was launched on April 18, 2002, with 50 Toyota cars — the RAV4-EV, the e-com, and the hybrid Prius.





MANUFACTURING



“Toyota’s commitment to ISO 14001 and the quality of its environmental management systems in North America reflects its dedication to excellence beyond the manufacturing of automobiles and components. It includes a genuine concern for the community in which it operates.”

– Russell Thornton
ISO Auditor and Manager of Environmental
Certification, Det Norske Veritas Certification, Inc.

We recognize that our manufacturing operations have potentially significant environmental impacts on air, land and water. Our five-year environmental action plan establishes specific goals to minimize the most significant impacts — energy use/emissions of greenhouse gases, volatile organic compounds, toxic chemicals, hazardous waste disposed at landfills and water consumption. In addition, our plan also addresses our suppliers’ environmental impacts through our Green Supplier Guidelines program. In the following section we review progress towards those goals during FY2002. We are currently on track to meet or exceed all of our action plan goals.

Key to our environmental management program is certification to ISO 14001, a voluntary standard that ensures development of a comprehensive environmental management system. The ISO certification process verifies that Toyota’s plants each have a formal environmental policy, a system designed to track the plant’s environmental performance and established mechanisms for continuous improvement. All of our manufacturing plants in North America, as well as the corporate manufacturing headquarters, have achieved certification to ISO 14001.

GOAL:

ENERGY REDUCTION

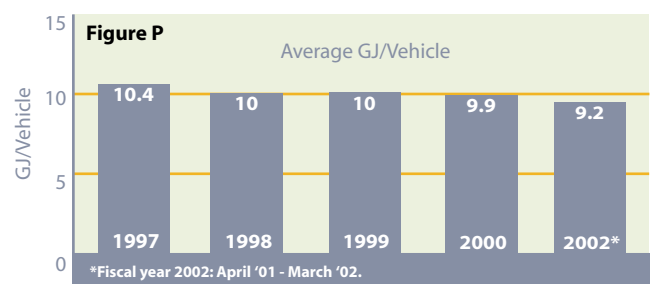
We need to reduce our energy use in order to reduce greenhouse gases — primarily carbon dioxide (CO₂) — originating from our manufacturing operations.

TARGET:

REDUCE ENERGY USAGE 15 PERCENT PER UNIT OF PRODUCTION

Our action plan sets an energy reduction target of 15 percent per unit of production by the end of FY2005 from the base year of 2000. This reduction in energy corresponds to a 15 percent reduction in CO₂ emissions. In order to achieve this goal, we plan to reduce energy consumption (as well as CO₂) by three percent per year until FY2005.

Even though production volumes have increased and our North American plants have increased in size, we surpassed our FY2002 target of three percent. In fact, we achieved a reduction of seven percent in energy consumption per vehicle from the base year 2000, as shown in Figure P. The figure illustrates our decreasing energy usage expressed in units of Gigajoules (GJ)/vehicle (or GJ/unit of production).



Note: The data presented in the chart are based on averages of site-wide energy use from all of Toyota’s manufacturing facilities in North America.

Main: In the body weld area, leading-edge robotic welders make most welds. Here, Jerry Craig performs custom welding on the body of a Toyota Camry.

Inset: Rolls of steel to be turned into Toyota automobile body components by giant hydraulic presses.



Danny Jackson, Team Leader, inspects an air compressor that is part of Toyota's intensive leak detection program. Reducing the running time of such compressors reduces the company's consumption of energy.

We achieved our energy reduction target through continuous improvement (*kaizen*) activities, including:

- Reducing compressed air usage by improving system-operating control
- Developing waste heat recovery systems in our painting shops
- Enhancing lighting control systems for improved efficiencies
- Setting criteria for new project development

KAIZEN SAVES ENERGY

At our plant in Georgetown, Ky., and several others, we reduced the use of compressed air through leak-detection programs and re-evaluating part-cleaning operations requiring compressed air. These changes eliminated the need to install additional air compressors, saving energy and reducing CO₂ emissions.

GOAL:
DEVELOP EXTENSIVE REDUCTION STRATEGIES
TO REDUCE EMISSIONS OF CONCERN

Our manufacturing facilities release a range of air pollutants into the atmosphere. The majority of these emissions are Volatile Organic Compounds (VOCs) from auto body painting operations. A portion of the VOCs fall into the category of toxic air pollutants as identified under the U.S. Environmental Protection Agency's Toxic Release Inventory (TRI) and Environment Canada's National Pollutant Release Inventory (NPRI).

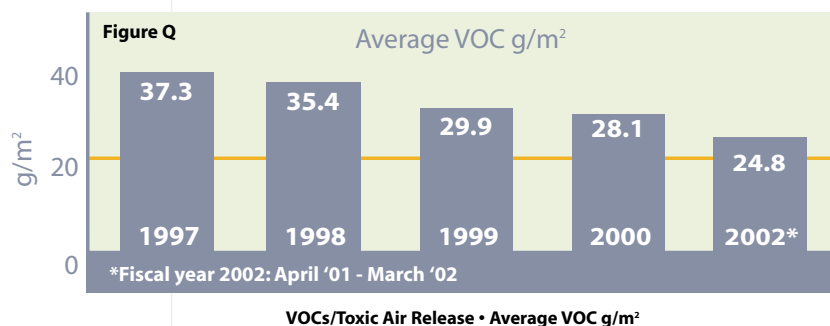
Our environmental action plan sets three targets for reduction of these emissions. To achieve our targets, we developed and implemented a Toxic Release Reduction program that includes:

- Researching and developing paints and solvents that help reduce harm to the environment
- Introducing new, high-efficiency process technologies
- Employing improved production line operating techniques
- Improving data management to quickly check our progress and project the impacts of each improvement strategy

TARGET:
REDUCE BODY-PAINTING EMISSIONS
OF VOLATILE ORGANIC COMPOUNDS

Volatile Organic Compounds are a category of chemicals that can react photochemically in the atmosphere to form ground level ozone — a primary component of smog. Our environmental action plan sets a target for reducing VOCs emissions to less than 30 g/m² for all body paint shops. As a measure of progress Figure Q demonstrates that, as a corporation, we have surpassed our goal of 30 g/m² since 1999, achieving a value of 29.9 g/m² in that year. In FY2002, we lowered VOC emissions even further to 24.8 g/m².

The introduction of new materials, new technology and improved process controls have enabled Toyota to reduce VOCs from body painting by more than 33 percent since 1997.



In order to achieve the VOC reductions shown in Figure Q, we pursued several approaches, including:

- Investigating low VOC/Hazardous Air Pollutant (HAP) cleaning solvents
- Introducing new robotics to optimize spray efficiencies
- Installing electrostatic guns to improve painting efficiencies
- Removing/streamlining painting operations
- Removing manual spray painting guns from paint booths to prevent unnecessary usage of chemicals
- Reducing use of cleaning solvents
- Increasing tracking of performance data for early evaluation of trends/opportunities for improvement
- Introducing waterborne painting technology
- Developing specific targets for new projects

TARGET: REDUCE TOXIC CHEMICALS EMITTED BY VEHICLE ASSEMBLY PLANTS

Our action plan calls for us to reduce the TRI/NPRI toxic chemicals emitted by each vehicle assembly plant to 1.0 Kg/vehicle or less.

As a result of our reduction program, we have been exceeding the 1.0 Kg/vehicle (or less) target since 2000.

KAIZEN REDUCES USE OF CLEANING SOLVENTS

Improved technology for capture systems now allows us to recapture more used solvents after cleaning painting equipment. Following the recapture, recyclers separate paint materials from the used solvent so we can reuse it, thereby reducing emissions.



Toyota continues to reduce solvent emissions by installing the latest painting technology, such as this state-of-the-art paint booth.



Angela Wess (Ky. Plant) pulls parts from a returnable box on the assembly line. Toyota has reduced packaging waste by converting to returnable containers.

TARGET:

CONTINUE RESEARCH AND DEVELOPMENT AIMED AT ELIMINATING VOCs/TOXIC CHEMICALS FROM COOLANTS AND CUTTING OILS

In the past, when new or reformulated coolants were developed, coolants were evaluated based on specific criteria such as ability to promote tool life, resistance to biological fouling and cost, to name a few. Over the past ten years, we have worked together with our suppliers to reformulate many of the coolants and cutting oils that we use. Coolants with toxins have been reformulated or replaced with non-toxic materials. We also reduced VOC emissions as a result of these reformulations. In one instance, VOC emissions resulting from the use of one coolant type were reduced from 18 to six percent by reformulating the coolant with less volatile components. In addition, Toyota's coolant suppliers help maintain coolant systems within the plant. By doing so, the life of the material is extended, in some cases up to three years. This eliminates the need to frequently dump the system and clean it out. It also reduces the demand on natural resources and potential impacts to the environment.

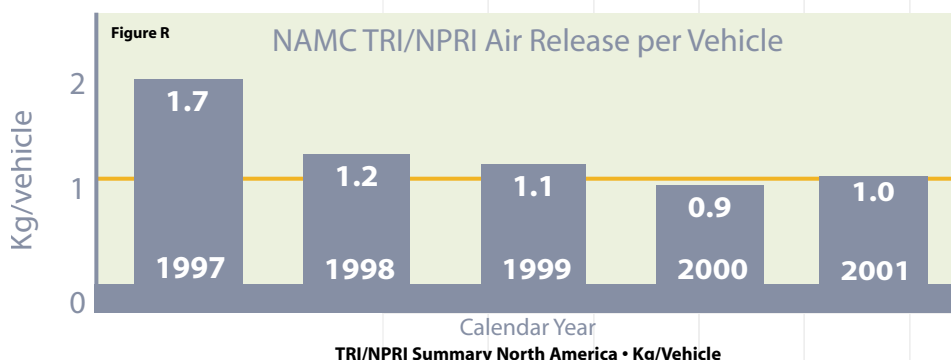
GOAL:

REDUCE WASTE AND PROMOTE RESOURCE CONSERVATION ACTIVITIES

Our manufacturing facilities continually strive to reduce waste, especially hazardous waste. Our Toyota "5 Rs" Program for Waste Reduction is key to our efforts. The program continuously challenges our team members to find new ways to limit waste generation.

TOYOTA'S "5RS" PROGRAM FOR WASTE REDUCTION

- **Refine:** Substitute materials and change designs to expand "Reduce, Reuse and Recycle" capabilities
- **Reduce:** Develop and design production technologies that generate less waste
- **Reuse:** Reuse waste materials in the same production process
- **Recycle:** Utilize waste materials in a different capacity
- **Retrieve Energy:** Utilize waste energy resources



Since Toyota implemented its action plan our North American plants have already reduced the amount of waste that is disposed at landfills by more than 9,000 tons.

TOYOTA PLANT WINS GOVERNOR'S AWARD FOR POLLUTION PREVENTION

Toyota Motor Manufacturing, Indiana, Inc. (TMMI) recently received the 2002 Governor's Award for Environmental Excellence in Pollution Prevention. One example of the plant's success was eliminating lead from a process essential to coating welded cars. The process, known as Electro-Deposition (ED), consists of immersing an entire vehicle body in an aqueous solution of ED primer. The ED mixture bonds to all exposed metal surfaces, serving two purposes:

- 1) providing rust protection to all exposed metal on the body,
- and 2) providing for a strong bond between the metal body and primer.

Though the ED process is essential to the manufacture of our vehicles, the resultant waste stream contained lead silicate. The U.S. Environmental Protection Agency designates lead as a toxic chemical. Toyota's technical division and paint suppliers have worked together to formulate a lead-free ED pigment. We are working to replicate this experience throughout our North American plants.

As a result, the Indiana facility not only reduced the amount of waste generated per vehicle by 20 percent from 2000, but also, all ED waste generated after October 2001 was lead-free and non-hazardous. As a result, lead containing waste was reduced by 100,000 pounds in 2002, and disposal costs were reduced by 95 percent.

TARGETS:

REDUCE HAZARDOUS WASTE DISPOSAL AT LANDFILLS BY 95 PERCENT AND LANDFILL OF OTHER WASTES

In North America, waste is characterized as hazardous or non-hazardous. Hazardous waste is ignitable (i.e. burns readily), corrosive, or reactive (e.g. explosive) or contains certain amounts of toxic chemicals.

Our North American action plan targets a 95 percent reduction in hazardous waste disposal at landfills by FY2005 from a 1999 base year. The plan also commits us to continuing research and development activities aimed at reducing the landfill of other wastes.

Since we implemented our action plan in 2000, our North American plants have already reduced the amount of waste that is disposed at landfills by more than 9,000 tons:

- **Hazardous waste disposed at landfills by 11 percent to 0.20 Kg/vehicle**
- **Non-hazardous trash disposed at landfills by 40 percent**
- **Landfill disposal of sand from casting operations by 70 percent**

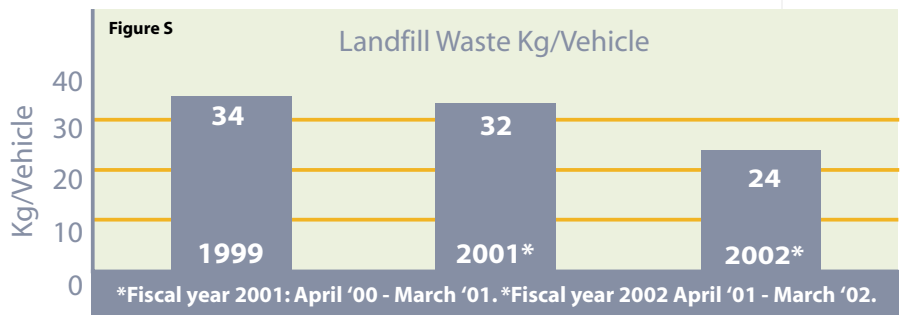
We employed many techniques in order to achieve these reductions, including:

- **Eliminating some disposable packaging and using returnable packaging materials**
- **Segregating materials such as wood, cardboard, plastic and metal, and recycling them**
- **Developing alternative waste management techniques (e.g. providing sand wastes to cement kilns to be used as a raw material in the production of cement)**

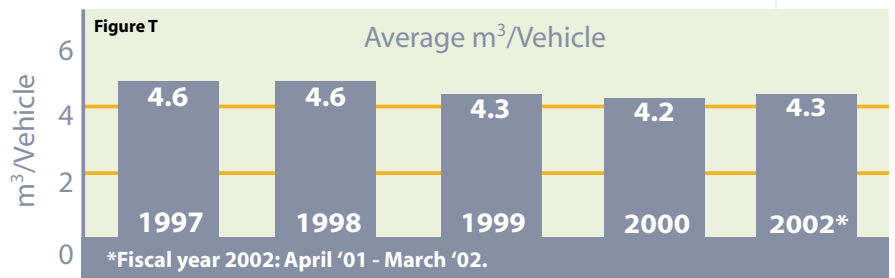


KAIZEN SAVES WATER

At Toyota's plant in Cambridge, Ontario, a system was installed to allow recycling of water. The system removes process waste materials from the wastewaters and allows the clean water to be reused in certain painting operations. This *kaizen* has reduced the amount of water we purchase from the water company.



Landfill Waste Summary North America • Kg/Vehicle



Summary of Water Conservation • m³/Vehicle

GOAL:

IMPLEMENT AGGRESSIVE PLANS TO REDUCE CONSUMPTION OF WATER

We continuously strive to conserve and protect water resources throughout our manufacturing processes. Our primary use of water is during painting operations, where a protective coating is applied to the vehicle.

TARGET:

REDUCE TOTAL WATER USAGE BY 15 PERCENT PER UNIT OF PRODUCTION

Our North American environmental action plan calls for a reduction in total water use by 15 percent per unit of production from the 2000 base year by the end of FY2005. Figure T illustrates the results of our water management efforts, as expressed in m³/vehicle. We reduced water consumption from 4.6 m³/vehicle in 1997 to 4.3 cubic meters (m³/vehicle) in FY2002.

We work with our suppliers to promote business activities that better protect the environment.

In June 2000, we issued Green Supplier Guidelines that promote “greener” purchasing activities.

GOAL:

ESTABLISH GREEN SUPPLIER GUIDELINES

We work with our suppliers to promote business activities that better protect the environment. In June 2000, we issued Green Supplier Guidelines that promote “greener” purchasing activities. Under this program, we require selected suppliers to:

- Obtain ISO 14001 certification by the end of 2003 (we will allow new suppliers as of January 2002 two years in which to obtain ISO 14001 certification)
- Comply with Toyota’s Chemical Ban List
- Develop procedures that ensure compliance with hazardous materials transportation guidelines
- Provide Toyota with Environmental Data Sheets on select materials beginning August 2000

Select suppliers have been identified using potential for environmental impact and purchasing criteria.

TARGET:

CERTIFY KEY SUPPLIERS TO ISO 14001 BY DECEMBER 2003

We require key suppliers of raw materials and/or parts and components to develop and implement an environmental management system that conforms to the ISO 14001 standard. Their systems must be certified by end of 2003. Toyota is providing instructional assistance to suppliers during the certification process. In addition, ISO 14001 requires facilities to conduct periodic internal compliance reviews of their environmental management systems.

TARGET:

COMPLY WITH CHEMICAL BAN LIST/ENVIRONMENTAL DATA SHEET

North American suppliers must eliminate use of chemicals on Toyota’s global chemical ban list from new and/or reformulated materials. Our corporate and plant Environmental Affairs departments check environmental data sheets prior to approving new materials from suppliers. If they find a banned chemical, they reject the order and require the supplier to find an alternative material.

ISO 14001 PROGRAM SAVES WASTE AND MONEY

Bodine Aluminum, Inc., with plants in St. Louis and Troy, Mo., provides Toyota with cast aluminum parts. When Bodine began its ISO 14001 program, it targeted two production-related areas for improvement. The company began measuring core scrap and the melting pigging ratio (the weight of metal pigged within the furnace that is not used for production after melting). The former measured about 14 percent and the latter about 22 percent. Within a year, ISO 14001 management systems enabled the company to reduce the core scrap to about six percent and the melting pigging ratio to about one percent, saving significant energy and nearly \$3 million a year.



SALES



“Our greatest challenge is maintaining our momentum with new products that are right for our customers and right for the environment.”

– Jim Press

Chief Operating Officer, Toyota Motor Sales, U.S.A., Inc.

We are always looking for ways to minimize the environmental impact of our sales, distribution and after-sales servicing operations. Our five-year action plan sets specific goals related to sales and distribution, which are discussed in the following section.¹ While we do not have direct control over our franchised Toyota and Lexus dealers, we do encourage environmental excellence at their dealerships.

GOAL:

ESTABLISH AN ENVIRONMENTAL MANAGEMENT SYSTEM

An environmental management system encourages companies to incorporate environmental management into long-term and short-term business strategies and everyday operations. We are in the process of establishing environmental management systems at all of our operational facilities.

TARGET:

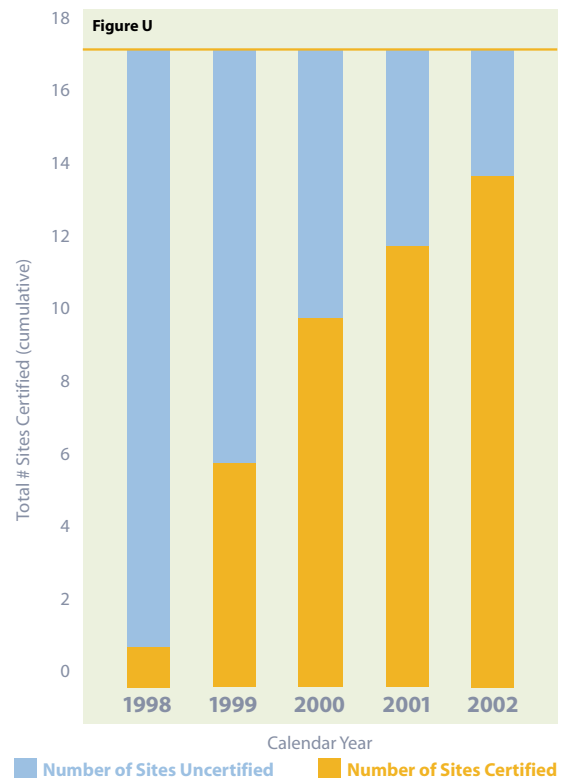
ISO 14001 CERTIFICATION AT ALL PARTS AND VEHICLE DISTRIBUTION CENTERS BY FY2005

Toyota is committed to achieving ISO 14001 certification at all vehicle and parts distribution centers by FY2005, and, currently 82 percent of our sites are certified. All of our on-going vehicle distribution centers are currently certified, and eight of 11 of our parts distribution facilities have ISO 14001 certified environmental management systems in place. Our Chicago and New York parts distribution centers (PDCs), located in Aurora, Ill., and West Caldwell, N.J., respectively, and our North American Parts Center, Hebron, Ky., are scheduled for certification in 2003 and 2004.

¹Toyota Canada Inc.'s goals and actions related to sales and distribution operations in Canada can be found at www.toyota.ca.

Most of our sales-related suppliers are covered under the same “Green Supplier Guidelines” as described in Life Cycle II (page 31). However, smaller sales-related suppliers who decide not to certify under ISO 14001 are encouraged to align their environmental practices with ours.

Toyota U.S. Vehicle and Parts Distribution Centers with ISO 14001 Certification



Main: Kenneth Cartier performs a final quality check on a Camry assembled at Toyota's Kentucky plant.

Inset: Ernie Lopez, ISO coordinator for Toyota's Los Angeles parts distribution center, checks returnable packaging containers, part of the company's returnable parts programs.



Attendees and speakers at Toyota's Third Annual Environmental Compliance Conference, from February 25 – March 1, 2002 in Torrance, Calif.

GOAL:

PROMOTE EXCELLENCE IN HANDLING AND TRANSPORTING HAZARDOUS MATERIALS

We receive, ship and store hazardous materials (HAZMAT) contained in components such as air bag modules, seat-belt pretensioners, paint and refrigerants. In 1998, we developed a comprehensive HAZMAT compliance plan. The key objectives of our HAZMAT plan are to:

- **Protect customers, TMS associates, the community and the environment**
- **Establish the best practices in our industry**
- **Maintain 100 percent compliance with all applicable HAZMAT regulations**

TARGET:

MAINTAIN 100 PERCENT COMPLIANCE WITH ALL APPLICABLE HAZMAT REGULATIONS

In accordance with U.S. Department of Transportation requirements, we established a nationwide network of HAZMAT facility coordinators and HAZMAT associates. The facility coordinators direct HAZMAT transportation activities in their facilities while the associates include those who load, unload or prepare hazardous materials for transportation. We develop and run training programs to keep coordinators and associates up-to-date and fully informed. We also conduct HAZMAT transportation and environmental compliance reviews at all sales-related facilities that ship hazardous materials, including those at private distributors. For the fourth consecutive year, we achieved our target of zero Notices of Violation for HAZMAT regulations.

We continue to improve our automated HAZMAT parts identification and transportation shipping system, in coordination with Toyota Motor Corporation and Toyota Motor Manufacturing North America.

We also take an active role in industry associations such as the Council on the Safe Transport of Hazardous Articles and the Dangerous Goods Advisory Council. In addition, we have taken a leadership position in creating the North American Automotive Hazardous Action Committee (NAAHAC), an organization comprised of U.S. automotive manufacturers.

TOYOTA MOTOR SALES HOSTS THIRD ANNUAL ENVIRONMENTAL COMPLIANCE CONFERENCE

More than 100 associates from Toyota Motor Sales, U.S.A., Inc. (TMS) facilities and private distributors nationwide — mostly HAZMAT and environmental coordinators — attended an Environmental Compliance Conference, hosted by TMS, from February 25 – March 1, 2002, in Torrance, Calif. The five-day conference consisted of environmental, ISO 14001 and HAZMAT training, working group sessions and presentations from TMS management and pertinent regulatory agencies.

Speakers and presenters included representatives from the California Environmental Protection Agency, Federal Aviation Administration, United States Coast Guard, Ford, Nissan, Autoliv and Denso. Visitors attended from Toyota Motor Corporation, Toyota Motor Manufacturing North America, Toyota Technical Center, Toyota Canada Inc., Toyota Motor Europe, private distributors Gulf States Toyota, and Southeast Toyota, as well as Servco, the Toyota distributor in Hawaii.

In 2001, improvements in bulk shipping and returnable packaging saved Toyota more than 412,000 pounds of cardboard, 107,000 pounds of wood and more than \$1 million.

FACILITY COMPLIANCE AND CONFORMANCE REVIEWS

To help keep our sales and service operations in compliance with regulations, we conduct annual, scheduled compliance reviews, as well as surprise reviews. If the facility has been ISO certified, we perform an additional ISO conformance review. In 2001, we performed such reviews at 44 Toyota facilities across North America. During these compliance review visits, we take the opportunity to provide the appropriate training to all applicable associates at the facility.

GOAL:

REDUCE WASTE AND CONSERVE RESOURCES

We are actively working to reduce waste from our sales and service operations and have set four key targets:

RESOURCE MANAGEMENT WORKING GROUP COLLECTING DATA

In 2001, Toyota established the Resource Management Working Group as one of five TMS environmental issue working groups.

This group has focused on collecting baseline data about recycling and resource conservation activities, and has developed standardized metrics to measure our progress.

In addition, the working group is implementing a Web-based environmental data tracking system that will allow TMS to track environmental data more easily and systematically. This will help the company develop appropriate resource conservation goals and enhance the information we report in future issues of our corporate environmental report.

TARGET:

IMPLEMENT NATIONWIDE WASTE-TRACKING PROGRAM

We are on track to complete this first target by the end of FY2003. This year we established waste-tracking metrics and began monitoring those metrics in our field operations. We are implementing a Web-based tracking system to collect and analyze data more easily and systematically.

TARGET:

SET NATIONWIDE WASTE-REDUCTION TARGETS

Our second target is to set nationwide waste-reduction targets. We will measure progress at vehicle distribution centers by kilograms of waste sent to landfill per vehicle distributed, and at our parts distribution centers by kilograms of waste sent to landfill per million dollars of parts distributed. Since we are still developing baseline waste/recycling information, we have not yet set company-wide waste reduction targets. We anticipate publishing these targets by the end of FY2003.

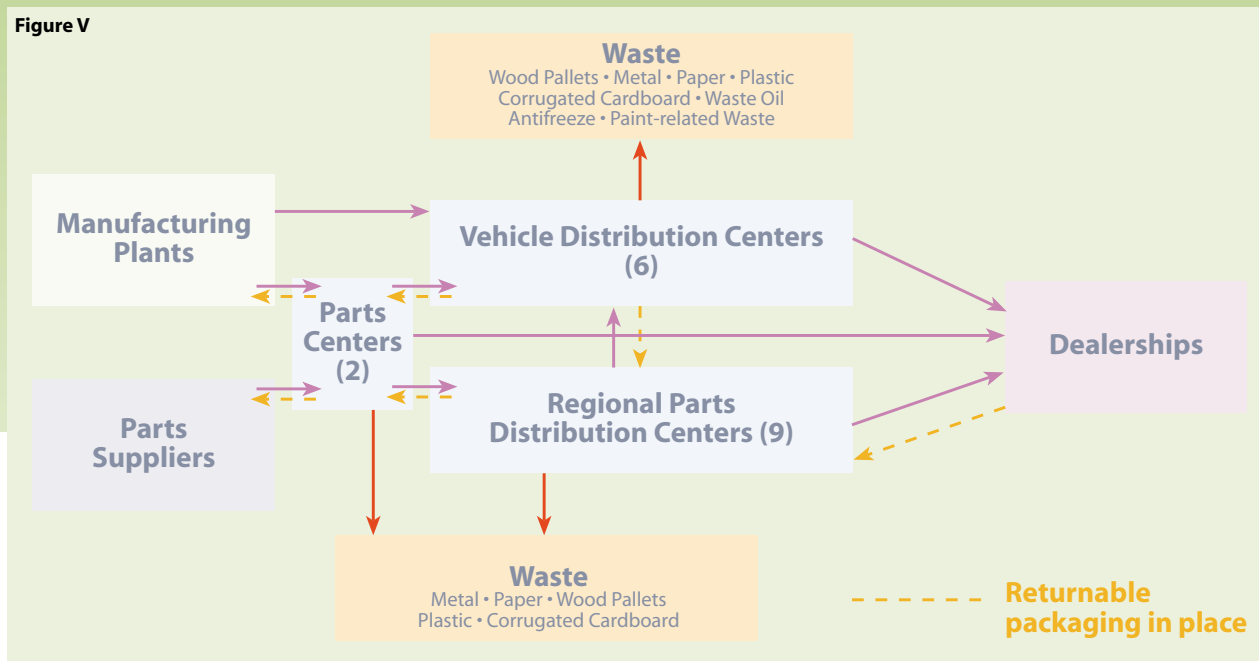
Within our sales operations, the Information Systems department has also put into operation a nationwide program to recycle computer equipment, including desktops, laptops, servers, monitors and printers. In FY2002, through this program we recycled 11,316 pieces of computer equipment weighing a total of approximately 196,000 pounds. All of our sales and distribution operations, excluding dealerships, participate in this program.

TARGET:

IMPLEMENT A RETURNABLE-PACKAGING PROGRAM AT PARTS DISTRIBUTION CENTERS

Our third waste reduction target is to establish a returnable-packaging program at all parts distribution centers, where volume warrants by FY2005. We will measure success against this target by the percentage of parts centers participating in the program. This project is currently on

Figure V



track to reach our goal – we now have ongoing returnable packaging programs at each level in the distribution system (Figure V). At this point, not all materials going through the system are packaged in returnable containers. However, both of our large-parts centers receive some parts in returnable containers. Both also send parts in returnable containers to seven of our nine regional parts distribution centers. All nine centers now ship some parts to dealerships in returnable containers.

In addition, we have extended this program to two private distributors that handle Toyota vehicles and parts in the United States – Gulf States Toyota, Inc. and Southeast Toyota Distributors, LLC. The program is being extended to Toyota Canada Inc. in 2002 and we will track our progress there.

TARGET: INCREASE RETURNABLE PACKAGING AND DIRECT SHIPMENT PROGRAMS TO VEHICLE DISTRIBUTION CENTERS

We are employing many improvements to achieve this fourth waste reduction target, including bulk shipments and returnable packaging. In 2001, such improvements enabled us to save more than 412,000 pounds of cardboard, 107,000 pounds of wood and more than \$1 million (see related story on page 37).

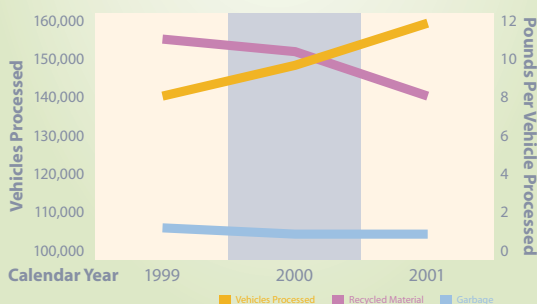
PORTLAND VEHICLE DISTRIBUTION CENTER NAMED RECYCLING LEADER

The Association of Oregon Recyclers recently named Toyota's Vehicle Distribution Center, Portland, Ore., "Company Recycler of the Year" for 2001. The center's early recycling efforts blossomed into a facility-wide program that helps the environment and saves money. In 1998, the facility adopted a four-step plan: 1) "dumpster diving" to evaluate potential recyclables; 2) defining and adopting a mission statement; 3) educating associates about recycling; and 4) working with recycling vendors to reduce waste.

The center found recycling vendors for corrugated cardboard, metal, paper, wooden pallets, foam, RapGard®, Styrofoam™, fluorescent light bulbs, batteries, used oil, and other items.

By 1999, these efforts enabled the site to reduce its average monthly garbage by 26 percent and divert an additional 107,928 pounds of solid waste away from landfills. In 2001, the center saved more than \$51,000 in landfill disposal costs and generated more than \$14,000 in revenue. Over time, the center has reduced the amount being recycled, reflecting the company's upstream reduction programs, such as bulk packaging, as well as reuse of materials (see chart).

Waste Reduction at Portland Vehicle Distribution Center



Toyota is exploring opportunities to use renewable energy sources. As a first step, we are using photovoltaic solar panels in our new Torrance, Calif., south campus buildings.

KAIZEN IMPROVES SHIPMENT OF WIND DEFLECTORS

The TMS North American Parts Operations Division evaluates packaging for parts sent to vehicle distribution centers, identifies parts used in the greatest volume and then looks for improvements, or *kaizens*, in packaging those parts. For example, the division found that suppliers of rear wind deflectors installed on certain Toyota 4-Runner trucks had been sending the deflectors individually packaged. After *kaizen*, the supplier used bulk packaging of the parts, reducing the amount of cardboard boxes and wood pallets needed, and saving time and money.

GOAL: REDUCE ENERGY USE

Toyota is strongly committed to conserving natural resources, especially energy. Consequently, we added a new goal to our five-year environmental action plan that challenges us to take action to reduce energy use.

TARGET: ESTABLISH ENERGY USAGE DATABASE

Our first step toward this new goal is to establish an energy usage database and measurement system. We are collecting baseline electricity and natural gas consumption data from the utilities at all sales-related facilities nationwide for 2000 and 2001. To give us a more complete picture of our energy usage, we tested an advanced utilities metering system at seven facilities during the spring of 2002 to obtain real-time data on electricity and natural gas usage. We will evaluate all this information so that we can calculate the need for more detailed targets in the future.

We are also exploring opportunities to use renewable energy sources. As a first step, we are using photovoltaic solar panels in our new Torrance, Calif., south campus buildings (see related story on page 39).

GOAL: REDUCE GREENHOUSE GASES

We have set a goal to reduce greenhouse gas emissions, which are associated with climate change, from our North American sales and service operations. Initially, we are collecting data to gain insight into the scale of our impacts.

TARGET: COMPILE GREENHOUSE GAS INVENTORY

We are committed to completing a greenhouse gas (GHG) inventory by FY2004. It will measure total tons of GHG emissions, tons of GHG emissions per vehicle distributed and tons of GHG emissions per million dollars of auto parts distributed.

In the summer of 2002, we began collecting baseline data for 2000 and 2001, starting with a pilot study of the TMS headquarters campus. We then expanded the project to other sales facilities nationwide in the fall. When the data collection project is finished, we will develop a greenhouse gas reduction strategy for our sales-related operations.

GOAL: PROMOTE ENVIRONMENTAL RESPONSIBILITY AMONG DEALERS

While Toyota and Lexus dealerships are independently owned and operated, we strongly encourage them to build and run environmentally advanced operations and offer our assistance in several important ways. In fact, many of our dealers have already taken a leadership role in this area.

TOYOTA DEALERSHIP A GREEN FLAGSHIP

Longo Toyota, located in El Monte, Calif., is the largest Toyota dealership in the world. It's also a model for greener operations at all North American Toyota and Lexus dealerships. "Maintaining an environmentally safe dealership is a matter of social responsibility and legal compliance," says Manager, Human Resources and Environmental/ Safety Compliance Coordination, Ken Rankin.

With support from Toyota's Environmental Assistance Network, Longo Toyota assessed its compliance obligations and its environmental impacts. The dealership serviced 98,000 vehicles in 2001, accumulating approximately 1,600 gallons of waste oil and 400 gallons of waste antifreeze per week. Its body shop repaired and repainted more than 500 vehicles for its customers.

The dealership recycles these waste fluids. Wastewater goes into clarifiers or oil-water separators. Hazardous materials such as refrigerants and parts containing mercury or lead are handled carefully and disposed of in accordance with applicable regulations. Monthly inspections ensure that Longo Toyota's high environmental standards are maintained.

In addition, the dealership provides environmental education for all of its employees. All new hires attend a formal 20-hour training course at Penske College, where several hours of instruction are devoted to safety and environmental issues. All new hires also work with their supervisors to complete a checklist addressing specific safety and environmental issues.

JAMES TOYOTA OUTLET

In March 2001, U.S. Environmental Protection Agency (EPA) Administrator Christie Whitman presented an "Environmental Quality Award" to James Botsacos, owner of James Toyota Outlet, Flemington, N.J., for the eco-friendly design and operation of his unique automobile dealership. Botsacos ensured that development of the dealership was done with respect for the local environment and with pollution prevention in mind. As a result, building contractors disturbed the local topography as little as possible during construction. In addition, the dealership features a glass design that makes maximum use of natural light, a service bay area with no floor drains and a wastewater system that recycles water until it is trucked off the premises for treatment.

Toyota's five-year environmental action plan also set two targets for enhancing our dealer environmental performance. We have achieved both.

TARGET:

LAUNCH THE TOYOTA ENVIRONMENTAL ASSISTANCE NETWORK ONLINE

Toyota has provided dealers with environmental management tools since 1993. Initially, our program provided every dealer with an information binder kept current by periodic, mailed updates. We also provided our dealers with a special newsletter three times per year. These

regular communications kept dealer awareness high and provided dealerships with important information about regulatory issues and waste stream management best practices.

In January 2001, we launched the Environmental Assistance Network (EAN) Online to provide dealers with instant access to comprehensive, accurate up-to-date waste stream management and compliance information. EAN Online is a partnership with CCAR-Greenlink, a not-for-profit organization partially funded and supported by the U.S. Environmental Protection Agency. This new program serves as a resource and planning tool with information from federal, state and many local regulatory agencies. We know from Web-usage statistics that the EAN site has averaged about 300 hits per day since January 2002.

In addition, Toyota prepared a 1,500-square-foot dealership environmental management exhibit for the National Automobile Dealers Association convention held in New Orleans during January 2002. The exhibit showcased waste stream management equipment, consumable products and techniques. The exhibit provided an opportunity for dealers from the entire industry to see Toyota's commitment to helping dealerships understand, implement and manage sound environmental programs.





Doug Tucker and Mark Yamaguchi in front of the building under construction at Toyota's South Campus sales headquarters expansion, Torrance, Calif. The building incorporates 500 kW of photovoltaics, energy and water efficiency features, wood from sustainable forests and steel from recycled automobiles.

TARGET:

ADD ENHANCED FEATURES TO THE ENVIRONMENTAL ASSISTANCE NETWORK

The following are some of the improvements we have made to EAN Online during the past year:

- Increased the database of searchable federal and state compliance documentation 13 percent since 2001, offering information from all 50 states
- Made it easier for dealers to navigate the site, ask questions and submit comments by e-mail or a toll-free phone number
- Updated state regulatory contacts
- Added all back issues of the newsletter in PDF format for printing, and added a simple search engine to make it easy for dealers to find individual articles by topic
- Added some Spanish-language documents to the Web site

GOAL:

PROMOTE GREENER BUILDING CONSTRUCTION AND MAINTENANCE OPERATIONS

The Real Estate and Facilities Department (REF) of our sales organization has created Process Green to demonstrate environmental leadership by utilizing practices, processes and products that are sustainable, address end-use cost and meet business needs in a socially responsible manner. Conceptually, Process Green is the evolutionary journey that tracks the migration from a disposable culture to a sustainable one. This process goes beyond building systems and materials and is inclusive of all REF projects and ongoing facilities operations, as well as business partners.

NEW TOYOTA HEADQUARTERS EXPANSION JOINS THE GREEN BUILDING INITIATIVE

Toyota's 624,000 square-foot South Campus headquarters expansion in Torrance, Calif., is a leading national environmental building initiative. The design and construction of the new buildings include many innovative "greener" building techniques. For example, the designers specified use of wood from certified sustainable forests for construction and interior finishes as well as steel from recycled automobiles to form the buildings' structural beams and columns. And contractors are recycling more than 90 percent of the waste generated by demolition and construction activities.

In addition, the buildings are high-performance envelopes that will enable them to exceed state energy-efficiency mandates by 20 percent. The facility also will include 500 kW of roof-mounted photovoltaic solar panels, the largest privately funded photovoltaic project in California to date. For future advances, the site plan includes an alternative energy "yard" for possible on-site "greener" power generation.

Toyota hopes this project receives a gold LEED™ (Leadership in Energy and Environmental Design) award from the U.S. Green Building Council under its green building certification program. The new facility will be the largest LEED™ certified project in the United States to date.

The U.S. Green Building Council, headquartered in Washington, D.C., is a nonprofit coalition promoting the understanding, development and accelerated implementation of green building policies, programs, technologies, standards and design practices. In June 2002, Toyota Motor Sales joined the Green Building Council as a member. To learn more about the Green Building Council visit www.usgbc.org.



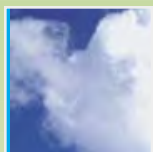
To realize Process Green, REF has identified the following strategies:

- Procure and use resources in the most environmentally intelligent, cost-effective and reliable manner possible
- Participate in government and professional environmental organizations and programs to share knowledge and accomplishments
- Work to affect a similar shift in the organizations and culture of our business partners

TARGET:

ACHIEVE LEED™ CERTIFICATION FOR THE SALES HEADQUARTERS SOUTH CAMPUS EXPANSION BUILDINGS BY THE END OF 2003

In 2001, we received the Calibre award (see awards section) for interior improvements at the Toyota Project Center building in Long Beach, Calif. More recently, we applied these environmental methods during the expansion of our sales headquarters campus in Torrance, Calif. (see related story).



RECYCLING



“Toyota will endeavor to become a leader of global regeneration through its outstanding environmental technologies.”

– Fujio Cho
President, Toyota Motor Corporation

Globally, Toyota is focused on efforts to ensure that future Toyota vehicles have less environmental impact when they reach the end of their useful lives.

Currently, 75 to 80 percent, by weight, of each end-of-life Toyota vehicle is reused or recycled. Recent legislative initiatives in Europe and Japan have inspired automakers to continue improving the recyclability rates of their end-of-life vehicles. So, Toyota’s worldwide goal is for all its vehicles to be 95 percent recyclable by 2015.

Additionally, European countries, as well as various states and provinces in North America, are developing legislation that addresses automotive use of various Substances of Concern (SOCs). To meet the challenges posed by these important initiatives, Toyota has set global targets for current and future vehicle development.

GOAL: **MANAGE SUBSTANCES OF CONCERN**

Recent worldwide legislation has challenged automakers to become active partners in the drive to reduce or eliminate the use of SOCs — including mercury, hexavalent chrome, lead and cadmium — in vehicles, and to assist in the assurance of safe recycling or disposition of SOCs from current end-of-life vehicles.

Toyota already has a good track record in these areas. For example, we have not used mercury in electrical switch applications for convenience lighting because we recognized the potential health and environmental impacts.

TARGET: **GATHER NORTH AMERICAN BASELINE DATA FOR SELECTED SOCS**

Today, we are working to analyze the SOC content of a typical North American-produced Toyota vehicle, and recently completed a study of the 2002 Model Year Camry. Our research indicates that the 2002 Model Year Camry has zero amounts of sodium azide, very small quantities of arsenic and cadmium, and mercury is contained only in displays. We have made significant reductions in chlorine (used in polyvinyl chloride) and lead, based on comparable 1996 Toyota vehicle data, but we have not yet entirely eliminated either substance.

Main: Rene L. Marquez inspects a Toyota Prius battery module at a battery recycling facility in Anaheim, Calif. The return program was set up to manage and recycle expired batteries from the Prius and Toyota electric vehicles, well in advance of their introduction to the market.



The completely redesigned 2002 Toyota Corolla uses approximately 5 Kg more Toyota Super Olefin Polymer (TSOP) than the previous generation Corolla. TSOP, a highly recyclable plastic material, can be used in everything from the bumper fascia to the instrument panel, improving the economies of scale for the potential collection and recycling of that material at the vehicle's end-of-life.

TARGET:
DEVELOP NORTH AMERICAN SOC
STRATEGY FOR BEYOND 2002

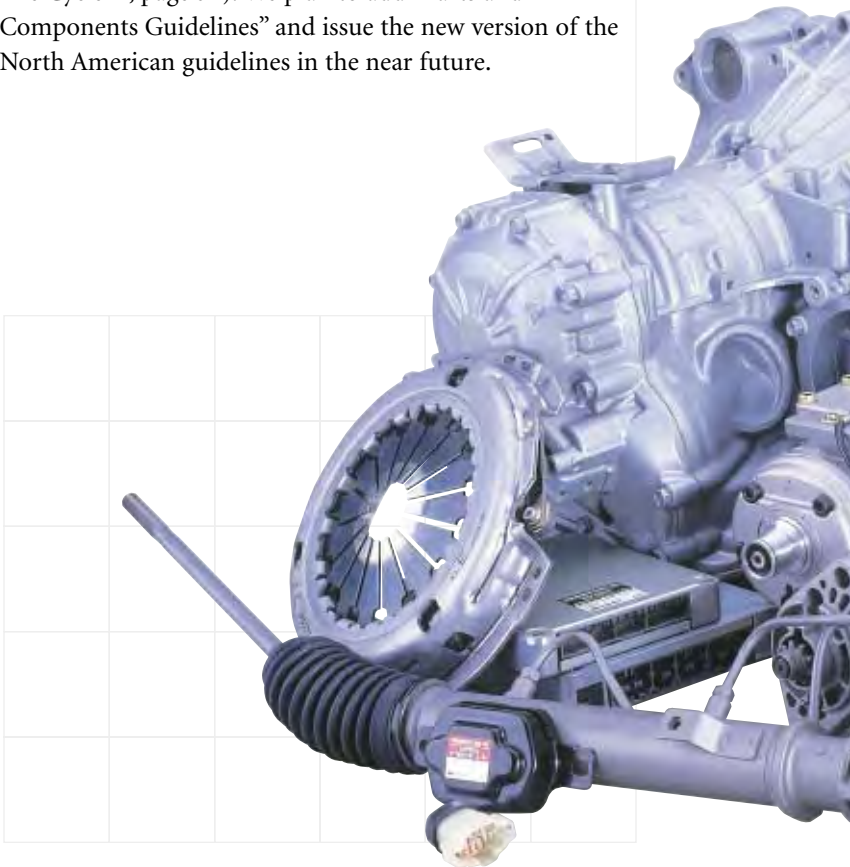
Having established a baseline for SOC use, we are setting specific targets for continued management of SOC use beyond 2002. With each newly developed vehicle, we plan to set increasingly aggressive targets for eliminating, replacing or reducing critical SOC's. These targets are based on Toyota's global SOC guidelines. They not only will allow Toyota to comply with European and Japanese laws and regulations, but also will help us be a leader on this issue in North America.

Thus far we have established the following targets to be reached by 2005:

Arsenic (As)	Eliminate (except for semiconductors)
Hexavalent Chrome (Cr+6)	Reduce to less than one-half of 1998 levels
Cadmium (Cd)	Eliminate
Mercury (Hg)	Eliminate (except for electric discharge tubes)
Lead (Pb)	Reduce to less than one-third of 1996 levels

WORKING WITH SUPPLIERS

Cooperation with our suppliers is key to our efforts to eliminate and reduce the use of SOC's in our vehicles. In many cases, our suppliers possess unique expertise regarding alternatives for various SOC's. We'll continue to encourage them to seek out such alternatives. In addition, we are currently working with them to develop our second generation Green Supplier Guidelines (described in Life Cycle II, page 31). We plan to add "Parts and Components Guidelines" and issue the new version of the North American guidelines in the near future.



Toyota engineers work collaboratively with our suppliers to implement designs using components that can be reused or recycled in an economically viable manner.

GOAL:

DEVELOP RECYCLING DESIGNS AND PROMOTE EXPANDED USE OF RECYCLED MATERIALS

A vehicle's recyclability at the end of its useful life is, in part, a reflection upon the design strategies used to create it. That's why Toyota engineers in North America and Japan work collaboratively to implement designs using components that can be reused or recycled in an economically viable manner.

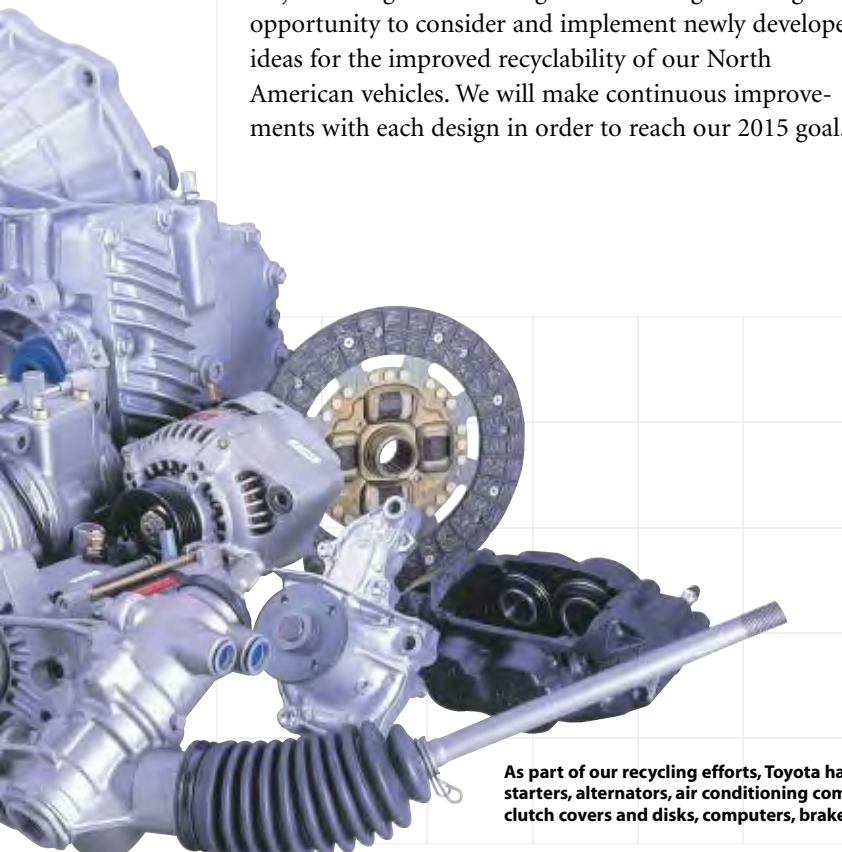
TARGET:

INCORPORATE MATERIAL AND DESIGN STRATEGIES FOR INCREASED VEHICLE RECYCLABILITY

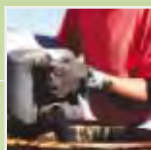
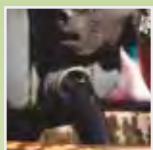
Every four or five years, most Toyota vehicles undergo a major redesign. This timing offers our engineers a good opportunity to consider and implement newly developed ideas for the improved recyclability of our North American vehicles. We will make continuous improvements with each design in order to reach our 2015 goal.

In mid 2002, company environmental experts conducted "Design for Recyclability" strategies training for the key engineers working on the next generation Avalon's redesign. They based the training on extensive experience and materials provided by Toyota Motor Corporation.

As part of our recycling efforts, we have also developed parts remanufacturing programs in North America to help minimize waste and dependence on raw materials. Currently, we have programs in place to collect and remanufacture starters, alternators, air conditioning compressors, steering gears, transmissions, clutch covers and disks, computers, brake calipers and water pumps.



As part of our recycling efforts, Toyota has programs to collect and remanufacture starters, alternators, air conditioning compressors, steering gears, transmissions, clutch covers and disks, computers, brake calipers and water pumps.



COOPERATION



“Promoting preservation of the environment must not end with just one company’s efforts; it is important, as a corporate citizen, to communicate on a broader level with society.”

– James Olson

Senior Vice President, Toyota Motor North America

As a global company, Toyota’s commitment to help create a cleaner and better world must extend beyond our products and manufacturing processes and to society as a whole. Each year, we invest millions of dollars toward education and other social programs in the communities where we operate. We are increasingly focusing these philanthropic contributions on programs that enhance society’s understanding of our fragile planet and what can be done to protect it. Additionally, we actively pursue partnerships with corporations, government and environmental groups to develop cleaner technologies. We support our employees’ volunteerism in improving the environment of their communities and the nation. From time to time, Toyota has been recognized for our environmental achievements and such awards are among those of which we are most proud.

LOCAL AND NATIONAL PHILANTHROPY

Toyota recently provided support to numerous science and environmental programs including:

Two endowment grants of \$1 million each to the National Audubon Society for education programs in New York and Los Angeles (see related story on page 46)

\$1 million to the American Museum of Natural History, New York City, in support of the AstroBulletin, a display of live high-definition views of the earth’s landforms and oceans from space

A \$1.1 million sponsorship of environmental education and tree-planting programs in partnership with the National Arbor Day Foundation

Fifty annual grants to teams of teachers nationwide for innovative classroom environmental and physical science programs through the Toyota TAPESTRY program, in partnership with the National Science Teachers’ Association

Grants from the Toyota USA Foundation to several innovative educational programs that improve the teaching of mathematics and science in classrooms

Corporate sponsorship of National Public Lands Day, in cooperation with the National Environmental Education and Training Foundation. 70,000 volunteers, including Toyota employees, clean and improve America’s public lands during this annual event

Sponsorship of numerous Earth Day 2002 activities across the country, including an event at the United Nations where a Prius was auctioned via eBay to benefit the Earth Day Network

Creation of the Toyota Nature Centre by Toyota Motor Manufacturing Canada (TMMC), in partnership with the Grand River Conservation Authority, allows children to learn about the environment in a natural setting

Sponsorship of the Evergreen Learning Grounds program, turning school settings across Canada into natural learning environments

\$200,000 grant to the Pratt Museum, Homer, Ala., for its Kachemak Bay Discovery marine science education program

26 RAV4-EVs provided for clean-up efforts in New York City after the events of September 11

Main: Toyota is a corporate sponsor of National Public Lands Day, when 70,000 volunteers clean and improve America’s public lands on the last Saturday in September.

ENVIRONMENTAL CONTRIBUTIONS



Five RAV4-EVs supplied to San Francisco's Presidio Trust for a one-year demonstration project

Team Member Donation Programs that provide grants to eligible non-profit organizations where Toyota employees volunteer

Toyota Motor Manufacturing, Kentucky's annual Fall Haul roundup of household hazardous waste in central Kentucky

Sponsorship of numerous American Lung Association events such as "Blow the Whistle on Asthma"

TOYOTA SUPPORTS URBAN AUDUBON CENTER

Toyota has provided \$2 million in endowment funding to the National Audubon Society for its first urban education centers in New York and Los Angeles. The center, in New York's Prospect Park in Brooklyn, provides New York City children and their families with hands-on nature education experiences. In Los Angeles, the grant supports a similar urban center in Debs Park, scheduled to open in the fall of 2003.



ENVIRONMENTAL PARTNERSHIPS WITH STAKEHOLDERS

Since no single company can protect the environment on its own, Toyota teams up with leading organizations, including other automakers, on environmental initiatives. Examples include:

Owen Electric, to purchase renewable power for the quality lab at Toyota's manufacturing headquarters in Kentucky. Toyota estimates that annual usage under the contract will be 1,560,000 kWhs, equal to the amount of power used annually by 1,300 average Kentucky homes

U.S. Environmental Protection Agency Green Power Partnership, to share information about greener power and promote renewable energy. Toyota joined the partnership in August 2002

Clean Cities Program, sponsored by the U.S. Department of Energy, to promote the use of advanced technology and alternative fuel vehicles. Toyota also provided 10 RAV4-EVs

Electric Vehicle Association of the Americas, to advance electric vehicle transportation technologies, including battery, hybrid and fuel cell vehicles, and cleaner fuels

General Motors, to jointly develop alternative propulsion methods and hybrid technologies

Nissan, to supply state-of-the-art hybrid system components and discuss future joint development

ExxonMobil, to develop more efficient internal combustion engines, hybrids and fuels for lower emission vehicles

ZEV•NET, in partnership with the University of California Irvine, to create a U.S. Department of Energy shared-use vehicle demonstration project where commuters drive Prius, RAV4-EV and e.com vehicles

City of Cambridge, Ont., to support its Green City project which organizes and funds events for community environmental improvements

Since no single company can protect the environment on its own, Toyota teams up with leading organizations, including other automakers, on environmental initiatives.

United States Green Building Council, to promote the understanding, development and use of greener building policies, programs, standards and design practices

CCAR-Greenlink, to provide information about environmental regulatory issues and waste stream management to car dealerships

NATIONAL WILDLIFE FEDERATION HONORS THE PRIUS

The National Wildlife Federation (NWF) presented its 2002 National Conservation Achievement Award, the “Connie,” to Toyota for Prius, the world’s first mass-produced hybrid vehicle. The foundation, one of the largest member-supported conservation education advocacy groups in the U.S, cited the Prius as a real-world example of reducing use of fossil fuels. “With the Prius, Toyota has taken a giant step forward in producing a car that’s easy on the environment, but attractive to consumers,” said Mark Van Putten, NWF president, “At a time when our nation and the world are struggling with the need to slash the use of fossil fuels, this car is an example that it can be done.”



From left to right, Bryan Pritchett, Chair of the NWF Board of Directors, Jim Olson, Senior Vice President of Toyota Motor North America, and Mark Van Putten, President and CEO of the National Wildlife Federation.

ENVIRONMENTAL AWARDS

Leading environmental media and business organizations have recently recognized Toyota’s environmental efforts with awards including:

“Best Engineered Car of 2001” (Toyota Prius) from *Automotive Engineering International*, official publication of the Society of Automotive Engineers

One of “10 Best Engines for 2001,” from *AutoWorld Magazine*, for the Prius’ “benchmark executions of engine design, innovation and manufacturing”

“Corporate Conscience Award,” 2001, from the Center for Responsibility in Business, for the Prius, the development of hybrid systems and partnerships with GM and other companies to develop cleaner automotive engines and fuels

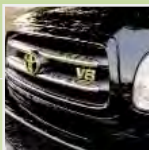
“Connie,” National Conservation Achievement Award, 2001, from the National Wildlife Federation for the Prius (see related story page 47)

“Company Recycler of the Year,” 2001, from the Association of Oregon Recyclers, for Toyota’s Portland, Ore., vehicle distribution center

“Calibre Award for Environmental Achievement, 2001,” from the 13th Annual International Interior Designers Association, for interior improvements of Toyota’s Long Beach, Calif. Project Center Building

“Green Power Leadership Award,” 2001, from the U.S. Department of Energy and the U.S. Environmental Protection Agency, for efforts to protect the environment through the purchase of green electric power

“Waste Reduction Award,” from the California Integrated Waste Management Board, for programs at Toyota’s North American Parts Center, Ontario, Calif. (received in 2000, 2001 and 2002)



INFORMATION



LIST OF ACRONYMS

As	Arsenic (a Substance of Concern)
CAFE	Corporate Average Fuel Economy
CARB	California Air Resources Board
CCAR®	Coordinating Committee for Automotive Repair
Cd	Cadmium (a Substance of Concern)
Cd	Drag Coefficient
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
Cr+6	Hexavalent Chrome (a Substance of Concern)
DOE	U.S. Department of Energy
ED	Electro Deposition
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
EV	Electric Vehicle
FCHV	Fuel Cell Hybrid Vehicle
FY	Fiscal Year
GHG	Greenhouse Gas
GJ	Gigajoules
HAZMAT	Hazardous Materials
Hg	Mercury (a Substance of Concern)
GPS	Global Positioning System
HAP	Hazardous Air Pollutant
HC	Hydrocarbon
HEV	Hybrid Electric Vehicle
ISO	International Organization for Standardization
Kg	Kilogram
LEED™	Leadership in Energy & Environmental Design
LEV	Low Emission Vehicle
LEVII	California's Second Generation Low Emission Vehicle Program
MPG	Miles per Gallon
MY	Model Year
NMOG	Non-Methane Organic Gas

NOV	Notice of Violation
NO _x	Nitrogen Oxides
NPRI	National Pollutant Release Inventory (Canada)
NWF	National Wildlife Federation
Pb	Lead (a Substance of Concern)
PDF	Portable Document Format™
SOC	Substance of Concern
SULEV	Super Low Emission Vehicle
TRI	Toxic Release Inventory (U.S. EPA)
ULEV	Ultra Low Emission Vehicle
VOC	Volatile Organic Compound
ZEV	Zero Emission Vehicle
ZEV•NET	Zero Emission Vehicle Network Enabled Transport

TOYOTA-SPECIFIC ACRONYMS

EAN	Environmental Assistance Network
NAEC	North American Environmental Committee
NAPM	North American Planning Meeting
PDC	Parts Distribution Center
REF	Real Estate and Facilities Department
TCI	Toyota Canada Inc.
TLS	Toyota Logistical Services
TMA	Toyota Motor North America, Inc.
TMC	Toyota Motor Corporation
TMMC	Toyota Motor Manufacturing Canada, Inc.
TMMI	Toyota Motor Manufacturing, Indiana, Inc.
TMMK	Toyota Motor Manufacturing, Kentucky, Inc.
TMMNA	Toyota Motor Manufacturing North America, Inc.
TMS	Toyota Motor Sales, U.S.A., Inc.
TSOP	Toyota Super Olefin Polymer
TTC	Toyota Technical Center, U.S.A., Inc.
VDC	Vehicle Distribution Center

For additional information or comments, please contact:

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Or visit www.toyota.com/environment



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