Protecting the Environment

Achieving a Symbiosis of People, Vehicles and Nature









Nissan and the Global Environment

Nissan's environmental philosophy is expressed in the phrase "a symbiosis of people, vehicles and nature." We provide our customers with the environmentally friendly products they expect, expanding their use in the market and contributing to the creation of a sustainable "automobile society." To achieve these goals, Nissan continues to work to understand the expectations of society and to resolve the related technical challenges.

In Japan we have completed the Nissan Green Program 2005, our mid-term environmental action plan. We are using the results of this plan to formulate goals for Nissan's operations on a global basis, which will lead to the creation of our next mid-term environmental plan.

Our Environmental Approach Three key issues of focus

Conservation of the global environment is the central challenge in our pursuit of sustainable development. As a major global automaker, Nissan constantly monitors and seeks ways to reduce the environmental impact of its business activities and the cars it produces.

Nissan's efforts in this area focus primarily on three key issues: management of CO₂ emissions, protection of the air, water and soil, and recycling of resources. Resolving these issues requires advanced technology capable of creating ecologically minded automobiles and the ability to spread that technology throughout the world. Nissan believes that focusing on both of these important elements is the key to its contributions to a sustainable automobile society.

Managing CO₂ emissions

While Nissan is fully engaged in developing fuel cells and other technologies of the future, it is also working to reduce CO₂ emissions and lower fuel consumption in today's vehicles through highly efficient engines and such technologies as the CVT, or continuously variable transmission. We also consider it vital to work together with society as a whole in this field, for instance by communicating with our customers about these technologies and helping to reduce traffic congestion. We are

Busines	s Activities and	Key Issues ————		
		Development	Production	Logistics
Key Issues	Managing CO ₂ Emissions	 Improving Fuel Economy Fuel Cell Vehicle (FCV) Development 	· Reducing CO ₂ Emissions	 Increasing the Loading Ratio Modal Shift
	Protecting the Air, Water and Soil	· Cleaner Exhaust Emissions	· Reducing Substances with Environmental Impact	
	Recycling of Resources	Design for Recycling	· Effective Use of Resources	· Reducing Containers and Packaging Materials

The content is available also in the environmental section of our website, which includes additional technical data about our environmental programs and activities. Visit "Environmental Activities" at:

http://www.nissan-global.com/EN/ENVIRONMENT/ Environmental Activities > Global Environmental Issues (Overview of environmental activities)



Protecting the Environment







working to reduce CO_2 emissions at all stages of our business activities, putting energy-saving techniques and natural energy sources to work at our manufacturing plants and offices and promoting a "modal shift" in transportation from trucks to ships and trains, which produce less CO_2 .

Protecting the air, water and soil

With its eyes on the future, Nissan has set its own strict standards and targets in the design and manufacture of its products. For example, we moved quickly to put our proprietary catalyst technology to work in producing clear gas exhaust emissions, and we have become the world leader in this field. This advanced purification technology will be an integral part of an even greater number of automobiles in the future.

We have taken the initiative to control our output of volatile organic compounds, which make up 90% of the chemicals produced during the automobile manufacturing process, putting measures in place even before their legal requirement. Nissan's strict adherence to environmental regulations is bolstered by the company's checks and efforts to improve its own operations to prevent environmental accidents.

Recycling of resources

Automobiles are made from valuable but finite resources. Increasing our expertise in the effective use of resources is vital to achieving sustainability in our business activities. Nissan places focus on two areas of importance. The first is recycling engineering: we design easily recyclable cars, as well as reducing and reusing waste from manufacturing plants and automobile shredder residue from end-of-life vehicles (ELVs). Second, we build partnerships with the economic operators involved in the automobile business. These efforts are underway across all divisions of Nissan, and we work closely with recycling operators and our own dealers as we seek to create a social system for recycling.

Sales and Service	Use	Recycling End-of-Life Vehicles
Partnerships between Nissan and Our Dealers		
•Nissan Green Shop Activities	• Environmental Communication and Education with Customers	Appropriate Treatment of End-of-Life Vehicles
• Sales of Nissan Green Parts		Recycling Automobile Shredder Residue Dismantling Research Parts Reuse Materials Recycling









X-TRAIL FCV 2005 model

Continuously variable transmission

Managing CO₂ Emissions

Many scientists believe there is a link between CO₂ emissions and global warming. We are taking steps now to reduce the amount of CO₂ emissions from our vehicles, manufacturing plants and other non-manufacturing activities. In all of our operations—our product development, of course, but also production and distribution—we seek to accurately gauge and to reduce our output of CO₂.

The Emissions Reduction Goal A range of technologies to boost fuel efficiency

Of the total volume of CO_2 emissions associated with the life cycle of an automobile, from excavation of raw materials to recycling of end-of-life vehicles, the largest portion occurs when the vehicle is on the road. Controlling these emissions is one of the most significant technology challenges Nissan is tackling today.

At Nissan we make efforts to gauge the effects of improved fuel economy in the vehicles we sell, and their impact on the environment, by measuring the average fuel efficiency for our company's products in major regions around the globe. In Japan we have achieved almost all of our fuel-economy targets, clearing the goals for gasoline passenger vehicles in seven of eight target weight classes, for gasoline trucks in nine of 13 classes, and for diesel vehicles in all classes.

Efficient engines and continuously variable transmissions

One technology that has improved fuel performance is the continuously variable transmission, or CVT. Nissan's CVT uses a steel belt to continuously adjust speed and thus achieve constant optimum operating conditions for the engine, providing power and fuel efficiency.

In 2002 Nissan released its Xtronic CVT for 3.5-liter front-wheeldrive and four-wheel-drive vehicles. This technology, a world first, improves acceleration and fuel performance under normal driving conditions and gives a smooth ride with minimum fuel consumption. Xtronic CVT made its first appearance in the United States in December 2002 in the Murano, and in Japan in February 2003 in the Teana. Today Nissan is a world leader in CVT technology, which it offers in a variety of passenger vehicles of all sizes.

This low-cost, cutting-edge transmission technology can be installed in a broad range of vehicles to greatly reduce CO_2 emissions. Nissan plans to produce 1 million CVT vehicles worldwide in fiscal 2007, four times the current level, spreading the benefits of this technology by putting it in the hands of as many customers as possible.

In 2004 Nissan announced its HR and MR engines. These lowfriction engines have the highest thermal efficiency in their class, offering both acceleration performance and improved real-world fuel economy. (This is a vehicle's average fuel economy as measured by Nissan, based on the mix of conditions—heavy traffic, city streets and highways, for example—encountered by real drivers.)

When paired with the Xtronic CVT, these new engines boost fuel efficiency considerably. The Lafesta model released in Japan in December 2004 saw a 37% improvement in fuel economy from existing vehicles of the same class. During fiscal 2005 Nissan ramped up production of these new engines in the Chinese and European markets, and we plan to continue increasing their use in other key regions around the world.

Fuel cell vehicles

Fuel cell vehicles are powered by the electric energy generated by the chemical reaction of hydrogen and oxygen. The only emission produced by FCVs is pure water, making them highly eco-friendly.

Over the years Nissan has developed and used a variety of technologies, from electric vehicles and hybrid vehicles to compressed-natural-gas vehicles. In fiscal 1996 we began development of FCV technology, a process that led in 2005 to a new model of the X-TRAIL FCV. After the X-TRAIL FCV 2005 model received certification from the Ministry of Land, Infrastructure and Transport, we introduced it to the Japanese market through a limited lease program.

The 2005 model was equipped with a Nissan-made fuel cell stack (the power source for FCVs) that was just 60% of the size of previous stacks. The electric power capacity saw a huge leap from 65 to 90 kilowatts. This maximum output of the stack increased the FCV's top speed to 150 kilometers per hour. The improvement of the fuel cell system also improved the cruising range to more than 370 kilometers.



Nissan's first fuel cell stack developed in-house. A fuel cell stack is a device that produces electricity through the chemical reaction of hydrogen and oxygen in the atmosphere.



Nissan Wingroad with e-4WD technology (Japan)

By adding a system capable of holding compressed hydrogen gas, the raw fuel for the fuel cell, at a pressure of 70 megapascals, Nissan increased the car's cruising range to more than 500 kilometers. Trials on public roads were conducted in Canada in February 2006.

Hybrid vehicles

Hybrid vehicles are powered by a combination gasoline engine and electric motor. Their low CO_2 emission levels and relatively clean exhaust make them environmentally friendly.

Nissan is developing hybrid technology as part of its contributions to the achievement of a zero-emission society. In September 2002 we formed a technical partnership with Toyota Motor Corp. to meet the needs of our customers for hybrid vehicles. In June 2004 we produced a prototype of the Nissan Altima Hybrid, a model slated for release in the U.S. market in early 2007.

We are continuing to develop more advanced hybrid technology as one way of bringing new value to Nissan customers.

Bio-fuels

Ethanol and other bio-fuels are derived from organic matter. Since the CO_2 emitted from burning these fuels is equal to the amount of

the gas consumed by plants as they grow, their use leads to no net increase of atmospheric CO_2 , and they are attracting increasing attention as a replenishable source of energy.

Nissan has a plan to roll out new vehicles around the world that can use a blend of gasoline containing up to 10% ethanol, commonly known as E10. In North America, meanwhile, we have already marketed two types of pick-up truck, our Titan King Cab and Titan Crew Cab, that are capable of using fuels that are up to E85, or 85% ethanol. We are continuing development in this field.

e-4WD

Nissan's e-4WD is the world's lightest, most compact electric fourwheel-drive system. These vehicles are based on a standard frontwheel-drive system. They feature an extra electric motor that provides rear-wheel drive when required by road conditions, giving increased control and stability when driving on ice or snow. When driving in front-wheel-drive mode, the electromagnetic clutch releases from the rear wheels and decreases friction, providing better fuel economy than traditional 4WD vehicles. The Nissan March and Cube have come with e-4WD technology since 2002, and we have also expanded the use of this system to the Tiida, the Note, the Wingroad and the Bluebird Sylphy.

Messages for Our Stakeholders



Stan Jones

Overseas Program Director Program Management Office Nissan North America, Inc. (USA)

Altima Hybrid Satisfies Customers, Benefits Environment

In 2007, Nissan will introduce its first hybrid electric vehicle, the Altima Hybrid, into the North American market. This move is part of Nissan's long-term technical, product and environmental strategy. It's important for us to meet the Advanced Technology Partial Zero Emissions Vehicle standards for emissions requirements that are determined by the California Air Resources Board. We're also working to enhance our environmentally friendly image. HEV customers are looking to reduce fuel consumption and contribute to improving the environment. The Altima Hybrid delivers, combining outstanding style and performance with excellent fuel economy and low emissions. In addition, dynamic performance—especially freeway passing—will be superior to competitors, thus meeting customer needs and wants in a responsible package without compromise.





Cogeneration systems at Tochigi plant (Japan)



Panel showing progress of waste reduction at Nissan Mexicana, S.A. de C.V.

Wind turbine at Sunderland plant (U.K.)

A Cleaner Manufacturing Process Introducing energy-efficient equipment to reduce CO₂

CO₂ emissions from the manufacturing process come mostly from the use of fossil fuels as an energy source. To reduce the amount of energy used in the manufacturing process, Nissan is taking two energy-saving approaches in its plants: improving equipment and redundant processes.

Beginning with the introduction of wind-powered electric generators in November 2005, Nissan has been making effective use of natural energy resources in its U.K. plants. Wind power now provides around 5% of the electric power used in Nissan's manufacturing operations in the United Kingdom. In Japan, too, Nissan has decided to participate as a partner in a project to build a wind-power facility in the city of Yokohama, Kanagawa Prefecture. We plan to make use of this "green electricity" at our Yokohama plant. Nissan manufacturing plants throughout Japan are increasingly employing cogeneration systems that use the heat created when generating electricity to improve their energy efficiency still more.

Also in Japan, Nissan has organized NESCO, the Nissan Energy Service Company, a group that researches and develops energy efficiency measures to be implemented at all plants. Our global information-sharing efforts extend to the measures used in each country, which we seek to put to use at all of our production bases around the world.

In fiscal 2005, CO₂ emissions for major Nissan global production bases totaled 2.31 million tons, an approximately 130,000-ton decrease from fiscal 2004. The CO₂ emissions for vehicles produced by Nissan Motor Co., Ltd. in fiscal 2005 amounted to approximately 710,000 tons, a 14% decrease from fiscal 1999. This more than cleared our reduction target of a 10% decrease or more over that period.

The number of vehicles produced globally by all automakers each year is on an upward trend. Nissan has placed top priority on increasing energy efficiency in the manufacturing process and reducing total CO_2 emissions in its global production bases. In fiscal 2005 we began work on a global scale aimed at further reducing emissions.

Efficient Distribution Measures to save energy during the shipping stage

The production of goods inevitably involves physical distribution. The creation of one vehicle involves numerous shipments of

Messages for Our Stake



Graham Bagley Engineering Nissan Motor Manufacturing (UK) Ltd.

Sustainable Manufacturing a Win-Win Pursuit

I recently headed up the engineering team that installed a wind farm at the Sunderland plant in the United Kingdom, a unique project within the global Nissan Group. As one of the biggest automobile manufacturers in the world, I believe Nissan has a genuine responsibility to produce its vehicles in the most sustainable way possible, and projects like this prove that Nissan continues to take this responsibility very seriously. The six turbines will generate around 5% of the plant's annual electricity requirement. This will save the Sunderland plant over \$800,000 per year, in addition to cutting CO₂ emissions at powerplants supplying us with electricity by several thousand tons. To me, this kind of win-win scenario is what sustainable manufacturing is all about. As a plant, we have found a way of offsetting very steep rises in our energy costs while, at the same time, making sure the environment also benefits.



Modal shift to rai

materials, with most of these tasks being handled by trucks emitting high levels of CO₂. Nissan is working to improve efficiency and reduce emissions over the entire distribution process. We receive ideas from suppliers and distribution companies on ways to work more efficiently as we pursue two main approaches to streamlining distribution: improving loading ratios and switching to better modes of transportation.

Improving loading ratios

Nissan was the first Japanese automobile manufacturer to implement the "roundup" system, in which the company uses its own trucks to pick up parts from the various suppliers. Compared with the traditional method of parts delivery, in which each supplier delivers its own goods, the new system has reduced the number of deliveries from 2,500 deliveries per day, as measured by 10-ton truckloads, to the current level of 2,200 deliveries. The roundup system has been implemented in China and is planned for use in Thailand and other countries.

In Europe, Nissan cooperates with Renault in the area of parts delivery. We have worked with our Alliance partner for some time to ferry finished cars between the United Kingdom and the continent. Starting in January 2004, we have been working with other makers to use the ferry both ways, thus improving efficiency by eliminating unused space on return trips.

Nissan has also been modifying the parts containers it uses. Automotive parts are loaded into containers, which are then stacked on pallets for transportation. Nissan has privately developed 55 container types for its parts to maximize loading efficiency. The containers can be collapsed to reduce the amount of space they occupy when returned, a step that has improved loading ratios by 10%.

Modal shift

Modal shift to ferry transpo

Nissan is facilitating a modal shift in transportation, looking away from trucking to ship-based transport. In Japan today, 51% of our finished vehicles and parts are transported to remote locations by sea.

Nissan is also promoting its reliance on railway transportation, which produces less than half the CO_2 emissions of sea shipping. We began in fiscal 2004 by switching to rail shipment for the parts normally shipped by truck from parts makers in the Kanto area to our factories in Kyushu. We project that this will result in a 70% reduction in CO_2 emissions compared with truck transport.

Vehicle orders in Japan generally see a rise in February and March. To cope with this seasonal peak each year we use the Nissan Car Pack, an efficient freight car that holds vehicles on both the top and bottom decks. In those two months in 2006, we used this double-decker train technology to ship a total of 1,000 vehicles to our Honmoku dock in Yokohama from the Tochigi plant, where we manufacture vehicles for export. We aim to continue increasing this number.



●CO₂ Emissions of Major Global Production Sites (1,000 tons CO₂)

Note: The number of production sites differs by year due to increases in the number of Nissan's consolidated companies and changes in the management boundary. For information on the companies included in this data, see our website:

Environmental Activities > Environmental Library > Publications and Data > Global Nissan

*Our fiscal 2005 Environmental Report carried an incorrect figure for the 2004 data (2,592 thousand tons). The correct data is shown here.



The Tiida meets Euro3 Standards (China)

Training specialists in China

Meaningful efforts to cleanse exhaust gases depend heavily on the infrastructure in a society—a reliable supply of proper fuels and appropriate vehicle maintenance, for instance. Nissan is putting its technology and expertise to work in cooperation with society to strengthen this infrastructure. The Chinese government is moving to require OBD* systems in all new cars. This has brought about a pressing need in China for the rapid development of an inspection process for these selfdiagnosing OBD systems and the specialists to implement that process. Nissan has agreed to help the government introduce its new regulations by training the needed specialists, and is actively building on this relationship by providing a range of vehicles to evaluate the exhaust output from different types of fuel.

Protecting the Air, Water and Soil

Cleansing Exhaust Emissions Working to boost SU-LEV sales in Japan

Nissan has long worked on development of clean combustion technology and catalyst technology. Since the 1970 amendment of the U.S. Clean Air Act, Nissan has been a leader in emissions cleansing technology. We were the world's first company to receive Partial Zero Emissions Vehicle certification, meeting the PZEV standards set by the California Air Resources Board in the United States. In January 2000, the Nissan Sentra CA released in the United States became the first gasolinepowered vehicle in the world to clear the CARB emissions requirements and receive this certification, which states that the vehicle exhaust gas is as clean as or cleaner than city air.

We were also the first company to receive U-LEV* certification in Japan. In August 2000 the Nissan Bluebird Sylphy became the first vehicle to gain this status from Japan's Ministry of Land, Infrastructure and Transport. In 2003, this model became the first in Japan to receive SU-LEV* certification.

In Beijing, where the city government adopted Euro3* in December 2005 to keep the air cleaner as an early phase of China's plan to implement these rules nationwide, the Nissan Tiida cleared the Euro3 exhaust gas requirements. This model, also the first car to come equipped with an OBD* system, gained official certification from the Beijing Municipal Environmental Protection Bureau. In Europe, too, Nissan has already cleared Euro4,* which went into effect from 2005.

To reduce the effects of auto emissions on the environment, we believe it is important to provide and popularize affordable vehicles with practical, effective technology. Our calculations show that if 80% of the gasoline-powered passenger vehicles sold by Nissan in Japan are switched to SU-LEVs, the effective reduction in nitrogen oxide and hydrocarbons would be the same as if 40% of new-car buyers purchased electric automobiles.





A line switched to water-based paint, producing less VOCs (Kyushu plant)



We brought cabin VOC concentrations below guideline values set by the Ministry of Health, Labor and Welfare in the Bluebird Sylphy (Japan).

In February 2003 Nissan achieved its goal of making more than 80% of the gasoline-powered passenger vehicles it sold in Japan U-LEVs. As of the end of March 2006, fully 95% of the cars we sold were U-LEVs or SU-LEVs. We also came very close to our goal of 80% of total sales for SU-LEVs, achieving the 78.0% sales level for these vehicles.

Nissan is also aiming for higher levels of exhaust cleansing in its diesel vehicles. We equip our diesel engines with common rail fuel injection systems, which burn fuel more efficiently, and diesel particulate filtering systems that include catalytic converters to capture, oxidize and remove particulate matter. Thanks to these technologies our diesel vehicles have met the Japanese emission regulations that went into effect in October 2005.

Beating Reduction Targets Nissan achieves VOC goals ahead of schedule

Nissan manages the chemicals it uses in its products in accordance with a self-prescribed set of chemical substance guidelines. Automobile manufacturing inevitably relies on a number of environment-impacting substances, but Nissan is constantly working to reduce its use of these chemicals through a strict management system and measures to decrease the amounts consumed and emitted as waste. All plants closely observe local environmental laws and take preventive measures to avoid environmental accidents. The laws are different from country to country, but Nissan makes efforts to achieve the highest standards possible. For example, we are steadily adopting water-based painting processes, which produce lower levels of volatile organic compounds, or VOCs. In fiscal 2005 we converted the top-coating line in one of the facilities (Paint Shop 1) in our Kyushu plant to water-based paints. We are also moving ahead with a schedule for outfitting the plants with deodorizing and other equipment.

At the design stage, we have been reexamining our use of adhesives and other materials in areas like seats, door trim and carpets to reduce VOCs in the vehicle cabin. These compounds, which include formaldehyde and toluene, can be volatile even at room temperature, and are believed to irritate the respiratory tract. With minor design changes in 2005 to the March, Cube and Cube Cubic, Nissan reduced the cabin concentrations of 13 substances to below levels permitted by Japan's Ministry of Health, Labor and Welfare. We achieved the same levels with the Wingroad, Teana, Serena and Bluebird Sylphy models introduced in the same year. Thanks to these efforts we were well ahead of schedule in meeting the industry goals, which are set in accordance with the Health Ministry's guidelines for new passenger vehicles sold after 2007.

*Technical terms used in this section:

U-LEV: Ultra-Low Emission Vehicle. A vehicle that produces 75% less exhaust emissions of nitrogen oxide (NOx) and hydrocarbon (HC) than the level prescribed in the 2000 exhaust emissions standards.

SU-LEV: Super Ultra-Low Emission Vehicle. A vehicle that produces 75% less exhaust emissions of nitrogen oxide (NOx) and nonmethane hydrocarbon (NMHC) than the level prescribed in the 2005 exhaust emissions standards.

Euro3, Euro4: European Emissions Standards Level 3 and Level 4.

OBD: On-board diagnostic system. An on-vehicle, self-diagnosing system designed to indicate problems with the catalytic converter or other components.



dismantling



Suspension parts recycled from aluminum wheels

Recycling of Resources

Giving Resources New Life Considering the full life cycle of vehicles

Nissan aims to achieve a sustainable "automobile society" with environmentally friendly recycling. We take great care at each stage of an automobile's life cycle to facilitate recycling and make the most effective use of our planet's limited and precious natural resources.

The Nissan design process involves considering how to avoid using materials that are harmful to the environment and how to make the vehicle as easy to recycle as possible. Our objective at the production stage is to minimize waste produced, aiming to bring it to zero eventually. Our sales and service representatives, meanwhile, play a vital role by providing recycled parts to increase our customers' choices. And finally, we carry out research at the end of the service life of vehicles, looking at ways to make them easier to dismantle and recycle. We take the insights and technologies gained through this research and feed them back to the people working in the development,

Effective use of resources through recycling

Use in Othe Material Recycling Intling Productio of Material rials Energy Production of Automobiles Auto (Products) Reducing Input of Natural Reducing Waste to Landfill Earth

manufacturing, sales and service stages for use in improving their processes.

Nissan focuses on the "three Rs" in conservation: reduce, reuse and recycle. We plan the reduction of the amount of waste throughout the entire process from the design stage, we reuse parts whenever possible, and we recycle all the resources we can. This makes more effective use of resources through the life cycle of the vehicle and reduces the amount of waste generated after its service life. Our goal is to reduce the burden on our natural environment. Achieving this goal requires active collaboration with numerous groups throughout society, and we place great value on partnerships that transcend organizational boundaries, working through these partnerships to create synergies of resource use and replenishment that complete a cycle of resource circulation.

Recycling by design

To facilitate recycling and the effective circulation of resources, new vehicles must be designed with the entire life cycle in mind, from design to disposal. Careful selection of raw materials is also key in reducing the burden on the environment.

Nissan set its sights on achieving a 95% recoverability rate for all new vehicles sold in Japan by 2005. Thanks to structural improvements and the development of highly recyclable materials for use in our vehicles, we achieved this target with the 2002 March and Cube, followed by the 2004 Nissan Lafesta, ahead of our 2005 deadline. The 2005 Nissan Note completed our efforts toward this goal, and all our new vehicles now have a recoverability rate of 95% or higher. We are still working on ways to further improve this record.

Nissan has teamed up with Renault to develop a recycling simulation system called OPERA. We use this system in the early stages of vehicle design to project recoverability rates and recycling costs. OPERA has become a vital tool for making our vehicles recycle-friendly.

Nissan Green Shop activities in Japan

Dealerships that meet Nissan's standards—a set of rules based on the ISO 14001 guidelines and established to promote environmental activities among Nissan dealers—are certified as Nissan Green Shops. In this unique environmental management system, dealers must perform self-inspections every six months and renew their certifications every three years. Since the Nissan Green Shop certification system was introduced in April 2000, it has grown to include approximately 3,400 dealerships and shops throughout Japan.

Through Nissan Green Shop activities, dealerships promote proper disposal of ELVs and waste materials, as well as processing and recycling the waste they generate in their service and repair activities. Outreach activities to inform our customers of these efforts are another important part of the program.





Nissan Green Shop certification logo

A less wasteful manufacturing process

Nissan pursues the "three Rs" conservation strategy to reduce, reuse and recycle waste produced in the manufacturing process. Through a strict waste segregation policy and close partnerships with recyclers, Nissan Motor Co., Ltd. has successfully met its Zero Direct Landfill Waste target continuously since setting it in 2001, keeping landfill below 1% of the fiscal 1990 amount. And we have more than met our goal of reducing the amount of incinerated waste to below 50% of 1999 levels, reducing this figure by 90%. As a result, we have achieved a recycling rate of 100% at our Yokohama plant, followed in fiscal 2005 by our Kyushu and Iwaki plants. Nissan's overall recycling rate in Japan stands at a high 99.5%.

Recycling on the dealership floor Nissan Green Parts

When dismantling our end-of-life vehicles (ELVs), recyclers carefully remove the reusable parts. Nissan collects and checks these for defects, delivering the reusable parts from these ELVs to our service network for secondhand sale. These are called Nissan Green Parts. In all we recover 42 parts in this way, classifying them in two categories: reusable parts, which are washed and tested, and rebuilt parts, which are disassembled and have components replaced as needed. Sales of Nissan Green Parts reached more than ¥2.1 billion in fiscal 2005. This program helps us reduce waste; it also allows our customers to buy the parts they need at just one-third to one-fifth of the price of new parts. Recyclers, too, benefit from the reduced costs for processing the waste from ELVs.

At the end of a vehicle's life Aluminum wheels

One unique way in which Nissan is helping the environment is through its collection and recycling of aluminum wheels from ELVs in Japan. We have been working with recyclers nationwide to collect these wheels from Nissan ELVs, using a process that lets us recycle the metal in them without degrading its quality. The high-grade aluminum we recover can be put back to use in suspensions and other important parts. Currently, an average of 100 tons of aluminum wheels are recycled every month.

Messages fo



Motoki Haneda

Aftersales Marketing Department Nissan Motor Co., Ltd. (Japan)

Sales Outlets Refashion Themselves as "Nissan Green Shops"

One factor a growing number of consumers are paying attention to these days when deciding where to buy an automobile is the eco-friendliness of the dealers where the products and services are offered. In response, we've set up a unique certification system under which our sales outlets are required to meet certain environmental conservation standards in order to be designated a Nissan Green Shop. The environmental activities of such dealers are monitored regularly.

By fiscal 2001 all Nissan outlets in Japan had acquired certification. Efforts have continued since then to consolidate and sustain the achievements made thus far and to implement further improvements.

Recently, many dealers have gradually begun launching environmental initiatives on their own. These efforts are aimed at enhancing communication with members of the community and at gaining greater exposure. Thank-you fairs have been organized to highlight each dealership's environmental efforts, and growing numbers of outlets have initiated clean-up operations, not only around their respective neighborhoods but also in the community at large.



About 160 kilograms of ASR is generated from a single March vehicle (previous model).

Automobile shredder residue

Nissan is very focused on recycling automobile shredder residue (ASR), the material remaining after a vehicle is stripped of its recoverable components and shredded. We began research on ASR recycling well before the 2002 enactment of Japan's Automobile Recycling Law. The high heat index of ASR makes it difficult to control the temperature during the heat recovery process, but Nissan has developed new technology to overcome this problem. Modifications to the furnace at our Oppama plant allowed us in the fall of 2003 to become the world's first automobile manufacturer to recover energy from ASR through furnaces at its own facilities. Since 2005, when the Automobile Recycling Law went into force, we have processed about 400 tons of ASR per month. The energy created in the incineration process generates steam used in painting processes at the factory.

Publicizing recycling results

Broad understanding of the actual conditions in dismantling facilities is vital to improving the ELV recovery rate. To this end, Nissan maintains close relationships with recyclers and conducts vehicle dismantling research. Repeated study and research has helped us optimize the ways we process ELVs, recycle materials and reuse parts.

The results of this research are fed back to the product development division and reflected in vehicle design. We are proud that the airbag processing system developed through our research is being employed as part of Japan's Automobile Recycling Law regime.

Recycling Law Compliance Toward efficient recycling in the auto industry

Japan's Automobile Recycling Law, which went into force in January 2005, requires automobile manufacturers to recover and recycle ASR and airbags and to destroy chlorofluorocarbons (CFCs) and hydrofluorocarbons (HFCs) from their ELVs. Nissan is a key member of a group of 11 automobile manufacturers called the Automobile Shredder Residue Recycling Promotion Team (ART). This group promotes the efficient recovery of ASR and compliance with the Automobile Recycling Law. As a leading ART member, Nissan is taking the initiative to work together with various sections of society and to improve the

Messages for Our Stakeholders



Atsushi Tashiro Recycling Promotion Department Nissan Motor Co., Ltd. (Japan)

Maximizing Customers' Value Through Nissan's Recycling Activities

Since the Automobile Recycling Law came into force in Japan in January 2005, the responsibility for recovering and recycling three items from end-of-life vehicles has rested with the manufacturer. The cost, though, is borne by the car owner. This, to me, means that customers have become our partners in fulfilling our social responsibilities. The recycling of end-of-life vehicles is now a joint effort among manufacturers, recycling operators and customers.

If the recycling fee is seen as an investment that customers make in our recycling activities, then we have an obligation to maximize their returns by launching vehicles that are friendly to the environment and are easy to recycle, as this will result in lower recycling fees. Our goal, then, should be to launch vehicles that cost less to recycle than our current models. Since Nissan's mission is to furnish as much value to the customer as we can, I hope to make a contribution through our recycling activities.



The operation room at the Oppama plant's ASR recycling facility (Japan)



ASR recycling facility at the Oppama plant (Japan)

efficiency of recycling operations throughout the automotive industry.

Nissan's recovery rate for automobile shredder residue from January to March 2005 was 64.0% (a level corresponding to an ELV recovery rate of 93.4%). This result exceeds the 30% level mandated by the law for fiscal 2005; it meets even the 50% requirement set for fiscal 2010. In the other areas covered by the law, Nissan has achieved an airbag recovery rate of 95%, also exceeding the legally required level of 85%, and has destroyed a total of 13,042 kilograms of CFCs and HFCs from ELVs.

Overview of Recycling Performance (Jan.-Mar. 2005)

ASR	Volume Received	8,247.0 t/40,650 vehicles	
	Volume Recovered	5,934.7 t	
	Recovery Rate	64.0% (Legal standard: 30% or more)	
Airbags	Volume Received	169.7 kg	
	Volume Recovered	160.3 kg	
	Recovery Rate	95.0% (Legal standard: 85% or more)	
CFCs/HFCs	Volume Received	13,042 kg	
Total D	Deposit Received	¥393,994,110	
Total Cos	st for Recovery, etc.	¥410,294,379	

Note: The most recent data is available on our website.



Major Recyclable Parts on the Note



The Environmental Communication Meeting (Japan)

In March 2006 Nissan held its Environmental Communication Meeting, providing a forum for the company to exchange views with its stakeholders on its Environmental Reports and web-based materials. These annual meetings had previously focused on the Environmental Report only, but beginning this year we renamed the gathering, positioning it as a way to discuss the company's environmental communications as a whole.

Participating in the meeting were 16 stakeholder representatives from Nissan's

suppliers and dealers, NPOs and NGOs, and eight representatives from within the company. One participant noted that Nissan's sincerity was evident in its efforts to tackle environmental problems with technology; another commented, "You could do a better job of adding a Nissan flavor to these activities and publicizing them among consumers. I look forward to improvement here." During fiscal 2006 we intend to take these views the participants shared with us and put them to use in improving our communications in the environmental field.

Environmental Communication

Talking with Stakeholders Dialogue to create a sustainable society

Nissan carries out open, active communication with all of its stakeholders on the company's environmental activities. We pursue these communications through a variety of channels: our Environmental Reports, pamphlets, websites, automobile showrooms and test-driving events, direct communications via our Customer Support Center, and a dedicated e-mail address for questions in this area. Inquiries about environmental topics are fielded by specialists in the company, who respond directly to stakeholder concerns. Nissan views this dialogue as a valuable part of the creation of a sustainable society.

Sharing information on the environment

Nissan began issuing its Environmental Report in 1998. This annual publication is supplemented with a digest version covering the highlights of the report. We also publish vehicle-specific environmental information in the product catalogs distributed to our customers. Other Nissan tools to meet the diverse information needs of our stakeholders include our Technical Notes for people interested in the details behind our environmental technologies, the Site Environment Reports covering our factories and other business locations, and the Green Cycle Newsletter distributed to dealerships. The guest halls at our production facilities are outfitted with environment-related photo panel displays, and we have established a program of environmental tours at our Oppama plant.

Regulatory briefings

Nissan holds regular briefings on environmental and safety regulations. These gatherings inform people from our development divisions and related companies about recent regulatory and societal trends in markets of key importance to Nissan. This program allows us to adjust our business activities quickly in response to changing laws, as well as heightening environmental awareness that transcends divisions within and beyond our company.

Working for global sustainable development



World Business Council for Sustainable Development

Nissan is a proud member of the World Business Council for Sustainable Development. A coalition of approximately 180 international companies in 30 industries, hailing from over 35 countries, the WBCSD shares a commitment to development supported by three pillars: economic growth, ecological balance and social progress.

One of the WBCSD's sector projects—efforts carried out by specific areas of industry—is the Sustainable Mobility Project. Twelve major companies in the automotive and energy fields are carrying out this project, which spent four years studying how mobility will develop around the world, the strategies needed to increase sustainability while contributing to development, and what is needed to make those strategies successful. The project's report, "Mobility 2030: Meeting the Challenges to Sustainability," was released in July 2004, and participants are now working on achieving the goals it outlines.



Nissan wins 2005 Sustainability Report Award (Japan)

Nissan's Environmental Advisory Meeting (Japan) -

Nissan held an Environmental Advisory Meeting at its Tokyo headquarters in September 2005. The purpose of this meeting was to get the objective input of experts outside the company on Nissan's global environmental strategy so we can reflect that input in our decisions. The participants in the gathering gave high marks to the participation of executives in the discussions, a sign of Nissan's dedication to the environment, particularly the goal of reducing CO₂ emissions. At this meeting we

School visit at an elementary

school on the topic of

the environment (Japan)

were able to hear numerous frank opinions on our business from a variety of third-party perspectives. Nissan intends to make use of this valuable feedback, incorporating these viewpoints into future environmental strategies.

Nissan in the classroom

One component of our environmental communication is visits to elementary schools in Japan, where Nissan employees give presentations to help students learn more about the environment. In the city of Atsugi, Kanagawa Prefecture, we taught a total of 120 fifth graders from September through November 2005, sharing information with them on the future of the automobile society and the environment. (See page 51.)

Employee Education Increasing understanding of Nissan and the global environment

Nissan Motor Co., Ltd. conducts environmental education programs for all its employees. To promote and strengthen our environmental activities, we need all of our workers to understand global environmental issues and Nissan's efforts to address them. New employees receive basic education on the environment during their orientation process. In fiscal 2005 all new employees (approximately 760) went through this orientation. New section leaders receive special training to increase their knowledge and awareness of issues in this field, enabling them to successfully lead environmental protection activities.

Nissan also conducts a unique range of awarenessraising programs that include in-depth discussions with environmental specialists for select employees, education to boost environmental awareness among key personnel and environmental seminars for top managers in our technical development division. In the past we have carried out educational efforts like these in different regions around the world; we are now working to unify our approach, creating a global environmental education system for Nissan employees everywhere.

Messages for Stakeholders



Hiromi Asahi Manager Technology Planning Department Nissan Motor Co., Ltd. (Japan)

What Automakers Can Do for Sustainable Development

"There is no magic bullet." The discussions we've taken part in as part of the World Business Council for Sustainable Development's Sustainable Mobility Project have driven this message home to me. To provide people with mobility in a sustainable manner, we can't rely on some special solution—we need the contributions of all our stakeholders, and we need to apply them in all areas of what we do.

In these efforts, companies are called upon to push technologies to their limits and to find those technologies that customers will accept in the products they buy. I believe that employees must recognize the responsibility they bear and find some way to really feel that they are making a difference through their actions.

Enriching People's Lives, Nissan's corporate vision, takes on deep significance when viewed through the prism of the environment. To ensure that generations to come will enjoy vehicles as a part of their lives, we have to reduce their burden on the environment, as quickly and as broadly as we can. I do my work each day with joy that I'm able to contribute to this goal.

