# **SUSTAINABILITY REPORT 2016**



# NISSAN MOTOR CORPORATION



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The Nissan IDS Concept

# VIEWING THIS REPORT



This Sustainability Report is an interactive PDF. You can easily access the information you need by clicking on the navigation tabs and buttons.

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Editorial Policy
 Nissan publishes an annual Sustainability Report as a way of sharing
 information on its sustainability-related activities with stakeholders.
 This year's report reviews the progress and results achieved in fiscal
 2015, focusing on the concept of Building Tomorrow's Sustainable
 Mobility Society and the eight sustainability strategies.

 Scope of the Report

Period Covered: The report covers fiscal 2015 (April 2015 to March 2016); content that describes efforts outside this period is indicated in the respective sections. Organization: Nissan Motor Co., Ltd, foreign subsidiaries and affiliated companies in the Nissan Group.

Referenced Reporting Guideline GRI Sustainability Reporting Guidelines (see website for complete GRI guideline table). Specific GRI indicators are listed for each sustainability strategy and in the CSR Data section.

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#### Date of Previous Report

Sustainability Report 2015, issued June 22, 2015. Reporting Cycle Annually since 2004

# ▶ page\_136 Forward-Looking Statements This Sustainability Report contains forward-looking statements on Nissan's future plans and targets and related operating investment, product planning and production targets. There can be no assurance that these targets and plans will be achieved. Achieving them will depend on many factors, including not only Nissan's activities and development but also the dynamics of the automobile industry worldwide, the global economy and changes in the global environment.

Click the link at right to view the third-party assurance.

- Mistakes and Typographical Errors
   All errors discovered following publication of the report will be
   corrected and displayed on our website.
   For Further Information
- Nissan Motor Co., Ltd. CSR Department Phone: +81(0)45-523-5523 Fax: +81(0)45-523-5771 E-mail: NISSAN\_SR@mail.nissan.co.jp
- Sustainability Report 2016 Publication Date: June 30, 2016

Third-Party Assurance

\* In 2006 we published our last print edition of the Sustainability Report. Out of consideration for the environment, we now publish the report exclusively online. It can be downloaded from our website as PDF files.

# INTRODUCTION

# **Corporate Vision** Nissan: Enriching People's Lives

# **Corporate Mission**

Nissan provides unique and innovative automotive products and services that deliver superior measurable values to all stakeholders in alliance with Renault.

Guided by its corporate vision of Enriching People's Lives, Nissan aims to contribute to the sustainable development of society through its full range of global business activities in addition to providing value through its products and services. As a leading global automaker, Nissan is committed to all stakeholders—including customers, shareholders, employees and the communities where the company does business—to deliver engaging, valuable and sustainable mobility for all. Nissan's pioneering efforts to promote electric vehicles, with their low environmental impact during operation, along with efforts to make mobility more affordable for people in emerging countries and the development of Autonomous Drive technologies that contribute to the realization of a society with virtually no traffic accidents are part of the value-creating initiatives rooted in this vision.

Blue Citizenship

This approach to corporate social responsibility is called "Blue Citizenship." Through Blue Citizenship, Nissan aims to be recognized by its stakeholders as a company that lives up to the expectations of society.

To share the company's CSR-related thinking and activities to as broad an audience as possible, each year Nissan publishes a Sustainability Report. By sharing this information, the company increases the level of transparency of its actions while creating opportunities to improve its activities by incorporating feedback from stakeholders, thereby contributing to the development of a sustainable society.

# CEO MESSAGE



Carlos Ghosn President and Chief Executive Officer

Nissan is proud to be leading the way toward a new era of sustainable mobility. Our goals are clear: We want to be one of the most sustainable companies in the world and to achieve long-term growth by focusing on innovation and acting with integrity and transparency. Additionally, we want to use our engineering and technological expertise to help solve some of today's most urgent social, environmental and safety challenges. Numerous breakthroughs we have brought to the market—from the zero-emission Nissan LEAF to our cutting-edge Safety Shield technologies—have been inspired by our vision of a better world.

In 2015, we built on these efforts. At a global level, we reaffirmed Nissan's commitment to our corporate vision of *Enriching People's Lives*. At last year's COP21 global climatechange conference in Paris, Nissan pledged its support for the conference goals. In addition, the Renault-Nissan Alliance provided a fleet of EVs that travelled more than 175,000 kilometers and highlighted the benefits of EV mobility. Nissan also pledged its support for the 17 Sustainable Development Goals (SDGs) set by the United Nations last year, which "Nissan will keep innovating with the goal of delivering value to our society. And we will keep working with our community of stakeholders to build a better world."

include promoting sustainable economic growth, infrastructure and energy solutions. We also continued our decade-long commitment to the core principles of the United Nations Global Compact.

Internally, we took significant steps forward in promoting the use of electric vehicles—a segment that Nissan pioneered with the launch of the LEAF in 2010. With more than 200,000 units sold worldwide, it is the world's best-selling EV. For the 2016 model year LEAF, we made it even better with the launch of an updated version. New 2016 model LEAFs have a battery capable of increasing electric motoring range by more than 20 percent—up to 280 kilometers on a single charge.

EV technology will continue to be at the heart of Nissan's product development efforts and provide the foundation of our autonomous drive vehicles. Nissan will be ready to deliver autonomous drive vehicles capable of highway and city navigation by 2020. During the next four years, we will launch multiple vehicles with autonomous drive technology in Europe, the United States, Japan and China. This technology will be installed on mainstream, mass-market cars at affordable prices; and the first model will be introduced this year in Japan.

Although we have further to go in meeting our sustainability goals, as this report details, we are making meaningful progress. As we move forward, Nissan will keep innovating with the goal of delivering value to our society. And we will keep working with our community of stakeholders to build a better world.

Carlos Ghosn President and Chief Executive Officer Nissan Motor Co., Ltd.

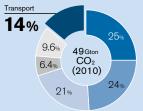
# **Building Tomorrow's Sustainable Mobility Society**

In a rapidly changing world, human societies face a range of challenges that impact them directly today and over the longer term. To help create a sustainable mobility society, Nissan is working to clarify those challenges and taking steps to come up with the solutions they require.

# Nissan's Twin Goals: Zero Emissions and Zero Fatalities

Today's society is broadly affected by the megatrends of climate change, demographic shifts in populations and advancing urbanization. Growth in the global population is expected to bring the total number of automobiles in use worldwide to 2.5 billion by 2050. At the same time, the transportation sector's contribution to greenhouse gas emissions is estimated to be 14% of the global total. And while advanced safety technologies have spread to even more vehicles, bringing about enhanced automotive safety, some 1.25 million people still lose their lives in traffic accidents worldwide every year. To address these issues and achieve a world where everyone can make use of sustainable mobility solutions, Nissan is aiming for two goals: zero emissions, with vehicles on the road producing no carbon dioxide, and zero fatalities, the target of bringing deaths and serious injuries from accidents involving Nissan vehicles down to virtually zero.

# Greenhouse Gas Emissions by Sector



 Electricity and heat production
 Agriculture, forestry, other land use
 Industry
 Buildings
 Other energy
 Transport

Source: IPCC, 2014 Summary for Policymakers. © IPCC, AR5-WG III

# Global Road Traffic Deaths (2013)



Source: WHO Global Status Report on Road Safety 2015.

# Creating a New Era with Nissan Intelligent Mobility

Toward the realization of these twin goals, Nissan is tackling a range of innovations. Collectively, these are called Nissan Intelligent Mobility. Within this framework Nissan aims to present customers around the world with a roadmap toward a safer, more sustainable society, continuing its pursuit of the pleasure of driving as a means of mobility, while it also considers the three clearly defined fields of how cars move, how they consume energy and how they relate to the rest of society. These three fields are positioned as follows:

- Nissan Intelligent Driving: Solutions such as Nissan's autonomous drive technology, ProPilot, which aim to make the vehicle a more reliable partner for the driver.
- Nissan Intelligent Power: Represented by electric vehicle (EV) technology, ways to enhance the pleasure of driving through greater efficiency for vehicles and more reliance on electricity to move them.
- Nissan Intelligent Integration: New values created at the nexus of vehicles and the surrounding society.

Nissan is engaged in a long-term strategy to be a leader and pioneer in the global EV segment. The Nissan LEAF, the company's mass-produced EV, is the world's best-selling all-electric vehicle, with more than 200,000 sold cumulatively as of the end of March 2016. Meanwhile, Nissan is also including autonomous driving functions and the various safety technologies that go into them into a wide range of its vehicles. To realize its ultimate goals of zero emissions and zero fatalities, the company is implementing Nissan Intelligent Mobility step by step, delivering value to customers in the form of EVs, autonomous driving and other innovative technologies.

**Building Tomorrow's Sustainable Mobility Society** 

# **Nissan Intelligent Driving**

Nissan Intelligent Driving is built on three key elements—performance, comfort and safety.

Guided by its Safety Shield concept, in which the vehicle helps to protect people, Nissan has played a leading role in the development of new safety technologies. With offerings like its Lane Departure Warning, Lane Departure Prevention and Forward Emergency Braking, Nissan has already outfitted its vehicles with many technologies that aim to reduce the stress of everyday driving, while they also help to reduce risk. With cars that can help the driver to recognize danger and take appropriate actions in response, Nissan is working to make mobility safer for all. And the company will continue its leadership in the safety field as it rolls out autonomous driving technologies in more of its main vehicle lines.

Nissan will introduce autonomous driving technology that allows safe travel within a single lane on a congested expressway by the end of 2016. This will be followed in 2018 with technology enabling autonomous driving on multiple expressway lanes, including risk-avoidance and lane-changing capabilities. By 2020, the schedule calls for technology that lets cars drive autonomously on city streets, including through intersections, without driver intervention.

# **Nissan Intelligent Power**

With an eye on the future, Nissan is exploring a broad range of energy sources for use. The mass-marketing of EVs, which can run on renewable energy, is one way that Nissan's technological work has borne fruit, and the company is the established industry leader in EV technology and vehicle sales. The Nissan LEAF, the company's mass-produced market entrant, has been driven a cumulative total of more than 2.1 billion kilometers. Sales have also begun of the e-NV200, the company's all-electric commercial-use vehicle, and Nissan is also crafting fresh solutions that position the vehicle as a "power supply on wheels."

The company is working to make its EVs more convenient, extending their driving range through enhanced battery energy density and performance. The Nissan IDS Concept, unveiled at the 2015 Tokyo Motor Show and showcased at the 2016 Geneva International Motor Show and Beijing Motor Show, carries a high-capacity 60 kWh battery pack, enabling 550 km of driving autonomy from a full charge in NEDC mode.\*

Also included in Nissan Intelligent Power are the company's downsized turbo engine and X-tronic Continuously Variable Transmission, providing both increased fuel efficiency and responsive performance.

NEDC: New European Driving Cycle



The Nissan IDS Concept



The Nissan IDS Concept

**Building Tomorrow's Sustainable Mobility Society** 

# **Nissan Intelligent Integration**

Key questions for any automaker are how to provide new value to people and how to contribute to the creation of a safer, more environmentally friendly mobility society. Nissan believes that the answer is the creation of a comprehensive network going beyond charging infrastructure for EVs to include people, vehicles and societal infrastructure as well.

In markets including Japan, Europe, the United States and Mexico, Nissan is working to expand the EV charging networks. There are already more than 10,000 quick charge points in place in major markets around the world.

Nissan's work does not end with building out charging networks; its mission as an automaker is to take this networking even further. By connecting cars to society's infrastructure—the roads, information networks and power grids—the company believes it will be possible to reduce traffic congestion, implement smoother car-sharing schemes, enable new forms of vehicle use through remote control, and manage energy more efficiently. The company also has its eye on another major trend—the growing desire of people worldwide to enjoy full access to the devices they use for work and personal entertainment at anytime, in any place—as one that is extending to the automotive space as well. Nissan's work today aims to strengthen the connectivity between people and their vehicles.

Nissan's promotion of Intelligent Integration seeks to make Intelligent Driving and Intelligent Power integrated parts of society through car-sharing, unified traffic systems, inductive charging networks and more. These efforts will bring concrete form to the idea of Intelligent Mobility—and they are already well underway.

# R&D to Support Nissan Intelligent Mobility

Today's society faces a wide range of challenges and shifts in unpredictable ways. As part of this society, Nissan sees one of its key missions as creating the new values that will contribute to the mobility society of the future. At its automotive research bases in Japan, the United States, India and Russia, Nissan observes society's trends as it carries out the research that will allow the company to address the issues of tomorrow's automobile society.

At the heart of these activities is the Nissan Research Way, the foundation for the company's innovative approaches to discovering, describing and providing these new values. The Nissan Research Way rests on three pillars: forecasting technology and social change, creating open innovation with the world's intellectuals and developing competitive technologies in strategic domains. At all its research bases, Nissan puts this approach to work in carrying out research and development aimed at creating Nissan Intelligent Mobility. In fields such as safety technologies and EVs, this R&D is already paying off in real-world applications.

As the company takes its R&D efforts to the next stage, the key to achieving autonomous driving technology and "connected cars" will be software development, particularly in the fields of data analysis and artificial intelligence (AI). At the Nissan Research Center in Silicon Valley, California, located near some of the world's leading information companies and university research facilities, Nissan researchers tackle the problems of AI development. Competition in the field of automotive technologies is more vigorous than ever, making it all the more important for Nissan to work closely with the world's leading research community, gaining exposure to cutting-edge tech and applying it swiftly to the automobile.

Integrating the latest in AI technology may help Nissan to build autonomous driving systems that can perform the complex judgments and actions that humans do when they drive. Already, the Nissan IDS Concept vehicle uses AI to process the information collected by its cameras and sensors and put it to work providing a safer, more comfortable autonomous driving experience.



Nissan Research Center Silicon Valley

# NISSAN'S CSR STRATEGIES AND MANAGEMENT

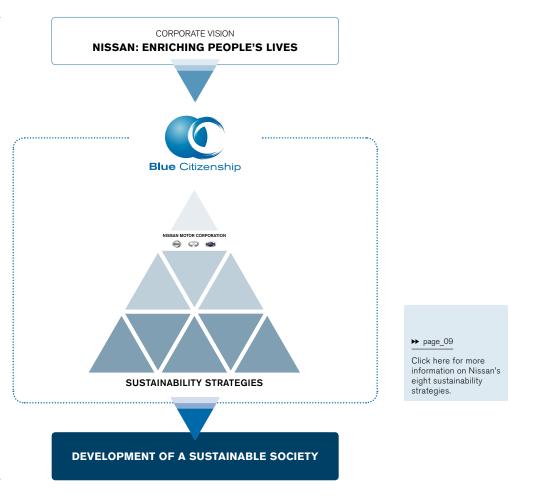
In addition to delivering growth with sustainable profits, Nissan seeks to contribute to the sustainable development of society. To this end, the company pays close attention to its diverse range of stakeholders, working with them as it pursues activities that meet society's needs.

# NISSAN'S CSR VISION

Guided by the corporate vision of Enriching People's Lives, Nissan seeks to contribute to the sustainable development of society through all global activities. The company's mission is to provide unique and innovative automotive products and services that deliver superior values to all stakeholders in alliance with Renault.

As a leading global automaker, Nissan also seeks to contribute solutions to humanity. The company is committed to all stakeholders including customers, shareholders, employees and the communities where it does business—in delivering engaging, valuable and sustainable mobility for all. Through its business activities, Nissan aims not only to create economic value but also to actively contribute to the sustainable development of society.

Corporate Vision	Nissan: Enriching People's Lives
Corporate Mission	Nissan provides unique and innovative automotive products and services that deliver superior measurable values to all stakeholders in alliance with Renault
CSR Vision	To be one of the leading sustainable companies in the industry



# MATERIALITY ASSESSMENT

Nissan's strategy to realize its CSR vision comes from the highest levels of the company. Top management regularly discusses key societal themes to prioritize the issues that Nissan, across all Group companies, must address as a global corporation and automobile manufacturer. This process provides the basis for the development of a Materiality Matrix. It is built on an assessment of sustainability issues relevant to the business and analysis of the company's underlying opportunities and challenges.

# ▶ page\_04

Building Tomorrow's Sustainable Mobility Society Nissan revisited the materiality assessment this year, taking into consideration the latest trends including stakeholder concerns and interests and technology developments. The analysis this year followed a three step process:

- Consider relevant sustainability issues based on CSR guidelines and trends. Also consider global current events inside and outside the automobile industry and issues identified in the 2015 matrix (see the diagram on the right).
- Analyze and categorize the selected issues into a draft matrix from the perspectives of the potential business impacts and level of stakeholder concern.
- Conduct interviews with both internal and external stakeholders. The feedback from the interviews is reflected in the materiality assessment. The results are reviewed by top management.

Building on the foundation of issues identified in the 2015 matrix, Nissan is discussing issues that require further attention. For example this year, the development and implementation of stricter regulations governing corruption prevention has led to an increased focus. Nissan is planning to develop corporate strategies based on this materiality assessment.

# Materiality Matrix 2015



Potential Business Impacts (Importance to Nissan)

# SUSTAINABILITY STRATEGIES

Nissan has defined eight sustainability strategies providing the foundation of its approach to CSR. As a leading automaker, it is uniquely positioned to pursue actions under the three strategies of Environment, Safety and Philanthropy. While helping to find solutions to sustainability issues in the automotive sector and contribute to the realization of a truly sustainable mobility society, Nissan aims to be an engine for CSR activities across the entire corporate sector. To remain trusted and needed by society, Nissan must also pursue the other five strategies— Quality, Value Chain, Employees, Economic Contribution and Corporate Governance & Internal Control. By steadily advancing these eight strategies and by being transparent on progress and challenges faced, Nissan is able to fulfill its responsibilities to society and build trust.



#### 1 ENVIRONMENT

Nissan aims to lead a social transformation aimed at bringing about a society of a sustainable mobility by reducing vehicles' environmental impact throughout their lifecycle and expanding the lineup of effective green products and technologies.

## 2 SAFETY

Nissan develops innovative technology and plays an active role in safety promotion, making the automobile society safer for all.

#### 3 PHILANTHROPY

Nissan carries out social contribution activities as a corporate citizen, focusing on the environment, education and humanitarian support.

#### 4 QUALITY Nissan provides top-level quality in its products and services around the world.

in all stages of the supply chain.

5 VALUE CHAIN Nissan promotes ethical, environmentally sound actions

#### 6 EMPLOYEES

Nissan aims to form an attractive organization where diverse human resources can achieve personal growth through experience in global business.

7 ECONOMIC CONTRIBUTION Nissan aims for sustainable, profitable growth, contributing to economic development for all of society.

CORPORATE GOVERNANCE & INTERNAL CONTROL Nissan aims to conduct fair, impartial and efficient business activities, having a high degree of transparency and consistency by adhering to the applicable laws and corporate rules.

# CSR MANAGEMENT

# **Company Organization for CSR**

Executive Committee, Nissan's top decision-making body, is responsible for setting goals and confirming progress across the eight sustainability strategies and for managing CSR activities in a comprehensive way throughout the company. It defines the overall course and the measures to be taken toward achieving the company's sustainability goals. Executive Committee includes 11 members (as of March 31, 2016) directly involved in company management, from the executive vice president level up, and meets monthly, enabling it to reach speedy, focused decisions.

In April 2016, the company established the new executive post of Chief Sustainability Officer. By closely linking CSR actions and business operations, Nissan is pursuing an approach to corporate management that consistently aligns the twin goals of (1) sustainable profit and growth for the company and (2) sustainable development for society.

# Nissan's CSR Decision-Making Process



# **Nissan's CSR Scorecard**

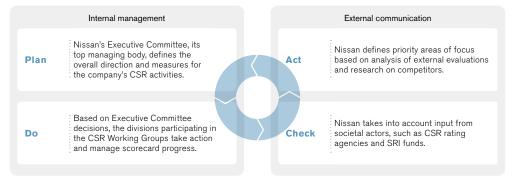
# Click below for the latest scorecard's sections on Nissan's eight strategies.

Nissan makes year-round use of the CSR scorecard as a core tool for monitoring and reviewing its progress. The vertical axis of the scorecard lists the eight sustainability strategies to check balances among stakeholders. The horizontal axis represents the points of intersection between the direction of Nissan's growth and that of society's development. The aim is to balance short- and long-term perspectives, achieving equilibrium between the two axes. Each year Nissan publishes the scorecard in this Sustainability Report. In fiscal 2014, the company modified the scorecard to facilitate stakeholder understanding of its sustainability performances.

# **PDCA Cycle to Promote CSR**

The PDCA (plan, do, check, act) cycle is a fundamental part of Nissan's CSR activities. Following Executive Committee decisions on the overall direction for these activities, the company manages progress using the CSR scorecard. In its actions the company incorporates the views of stakeholders throughout society, as well as analyzing external trends, reflecting these in future plans. In fiscal 2015, Nissan focused on the input of CSR actors and external trends, verified its materiality assessment within the company and began applying the findings to management strategies.

# PDCA Cycle



# Nissan's CSR Scorecard



# **Communicating CSR Activities Internally**

In addition to sharing information with the public via Sustainability Reports and through online resources, Nissan has long been committed to communication inside the company. Ongoing enhancements to this internal communication prompt individual employees to consider their connection to CSR and translate this into concrete actions.

The company includes CSR-related sessions in training for new employees and newly promoted managers with a website titled "Blue Citizenship: Nissan's CSR," part of WIN (Workforce Integration @ Nissan), and the employee intranet system, used to report on Nissan's activities and share a range of general information on CSR.

# **Dialogue with Stakeholders**

Nissan defines its stakeholders as those individuals and organizations that affect or are affected by the company's business. Nissan's management approach aims to align corporate activities with societal needs. The company focuses on gathering feedback from stakeholders and building relationships of trust, reflecting this input in its operations. Nissan pays close attention to societal views, works to identify opportunities and risks in their early stages and provides a variety of opportunities for dialogue with stakeholders. This interaction takes place at Global Headquarters and at other business facilities in Japan and overseas. Structures are in place to ensure that feedback is shared within the company.

For specific examples of Nissan's dialogue with stakeholders, see the pages introducing the company's eight sustainability strategies.



Stakeholders	Stakeholder Engagement
Customers	Customer service interaction, contact through dealers, websites, showrooms, motor shows, events, safety driving forum, customer surveys, media (TV, magazines, social media), owners' meetings, vehicle maintenance, mailing service
Employees	Direct contact (including whistleblowing system), intranet, internal events, interviews, surveys
Suppliers and Dealers	Suppliers conference, dealer conventions, business meetings, direct contact, briefings, corporate guidelines, websites, dedicated portal site
Shareholders and Investors	Direct contact with IR team, shareholders meetings, financial results briefings, IR events, IR meetings, website, Annual Report, mailing service
Governments, Industrial Associations and Business Partners	Direct contact, joint research, studies, automotive and non-automotive organizations (Japan Automobile Manufacturers Association, WBCSD, etc.), roundtables, working groups, conferences, events, assistance via foundations
NGOs and NPOs	Direct contact, philanthropic activities, partnerships, donations, disaster relief activities, events, assistance via foundations
Local Communities	Direct contact to local business facilities, local events, plant visits, conferences, sponsoring, traffic safety awareness campaigns, assistance via foundations
Future Generations	Direct contact, philanthropic programs, plant visits, endowed courses, events, assistance via foundations, websites
Media	Contact with PR team, press conferences, PR events, press releases, interviews, mailing service, websites

# **RESPECTING HUMAN RIGHTS**

Nissan conducts its business while respecting the human rights of its stakeholders. The U.N. Global Compact and national laws are guiding principles for the company, which has developed multiple guidelines and other measures to ensure that human rights are managed throughout business operations. Nissan will strengthen its human rights initiatives by continuing dialogue with stakeholders including customers, employees, business partners and local communities.

In 2015, the company revised the *Renault-Nissan CSR Guidelines* for *Suppliers* to clarify its response to the issue of conflict minerals and its procurement policy based on Japanese ordinances aimed at eliminating the use of antisocial elements. The new guidelines were drawn up with input from the Purchasing Department and distributed to suppliers.

# **PARTICIPATION IN GLOBAL INITIATIVES**

Nissan actively supports a number of international guidelines and agreements, respecting international policies and standards as it conducts its business operations.

# Nissan as a Responsible Global Citizen

Since January 2004, Nissan has participated in the United Nations Global Compact, a corporate responsibility initiative built around 10 universal principles regarding human rights, labor, the environment and anti-corruption. The U.N. Global Compact was originally proposed by U.N. Secretary-General Kofi Annan in an address to the World Economic Forum (Davos forum) in 1999. Businesses may pledge to support its principles of their own free will.

Nissan's CSR management aims to enhance the full range of the company's activities based on these 10 principles.

► website

Click here for more information on the U.N. Global Compact.

▶ website

 Click here to download the Renault-Nissan CSR Guidelines for Suppliers.

Click below for more

guidelines.

details about Nissan's

# , N

Click below for more information on examples of human rights initiatives.



WE SUPPORT

# **EXTERNAL ASSESSMENT**

Today companies are assessed on their environmental and social performance as well as their financial performance. An increasing number of investors use these assessments to guide their socially responsible investment (SRI) decisions. To meet these investor needs, Nissan takes a focused approach to CSR activities and proactively discloses information about its business operations. The company's CSR performance has received high praise from external assessors.

# MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM (

#### Dow Jones Sustainability Asia/Pacific Index

The Dow Jones Sustainability Index (DJSI) is an SRI index developed by S&P Dow Jones Indices LLC (U.S.) and RobecoSAM AG (Switzerland). Nissan was selected as a member of the DJSI Asia/Pacific Index again in 2015. Nissan has

been a member since the Asia/Pacific Index was established in 2009.



## RobecoSAM Sustainability Yearbook 2016

RobecoSAM AG (Switzerland) announces its Sustainability Yearbook every January. Nissan was again recognized as Silver Class in the Automobiles category.



# FTSE4Good Index Series

Nissan continues to be a constituent of the FTSE4Good Index, an ESG Equity Index Series of FTSE, after its 2015 review.



#### **Oekom Research Corporate Rating Report**

Oekom Research AG is a German sustainability rating agency, which assesses the environmental and social performance of countries and corporations. In 2015, Nissan was awarded Prime Status as a suitable target for sustainable investors.



#### **CDP Climate Change Program**

In the CDP Climate Change Report, announced in November 2015, Nissan was chosen for the "A" list. It also achieved a perfect score of 100 in the Climate Disclosure Leadership Index in the same report for its information disclosure regarding climate change issues.

# TOP 100

# GLOBAL INNOVATORS

#### Thomson Reuters Top 100 Global Innovators

For the third consecutive year, Thomson Reuters selected Nissan as one of its Top 100 Global Innovators. In deciding this award, Thomson Reuters uses its proprietary database of patent information to analyze not just recipients' advanced and innovative technologies but also their development of solutions with broad application in the real world. The award recognizes the most innovative companies and organizations in all industries around the world.

# **NS-SRI** モーニングスター社会的責任投資株価指数 Morningstar Socially Responsible Investment Index

#### Morningstar SRI

Nissan has been selected for inclusion in the 2016 MS-SRI (Morningstar Socially Responsible Investment Index), a Japanese SRI index managed by financial information services firm Morningstar Japan K.K.



#### **TSE Selection as "Nadeshiko Brand"**

The Tokyo Stock Exchange, Inc. selects listed companies as "Nadeshiko Brands" to recognize their active support of women in the workplace. This is the fourth straight year for Nissan to be named a Nadeshiko Brand, a designation jointly granted by the TSE and Japan's Ministry of Economy, Trade and Industry.

#### Nikkei Environmental Management Survey

Nissan ranked second in the manufacturing sector and first among automakers in the 19th Nikkei Environmental Management Survey. Nikkei Inc. announced the results in January 2016, giving Nissan high praise for its use of Nissan Energy Saving Collaboration (NESCO) auditing teams to boost the efficiency of energy usage at production sites. ▶ page\_87

Click here for more information on awards for diversity.

# ▶ website

▶ website

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Sustainability Yearbook

information on the

RobecoSAM

2016.

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information on the FTSE4Good Index Series.

Click here for more information on the Dow Jones Sustainability Indices.

# **RENAULT-NISSAN ALLIANCE**

Nissan has greatly increased its global footprint and achieved dramatic economies of scale through the Renault-Nissan Alliance, a unique and highly scalable strategic partnership founded in 1999.

In 2015, the Alliance sold 8.5 million units worldwide. The Alliance captured about 10% of the global market, ranking it among the top four car groups globally. Its vehicles are marketed under the following eight brands: Nissan, Infiniti, Datsun, Venucia, Renault, Renault Samsung Motors, Dacia and Lada (AVTOVAZ).

 Including sales by Russia's AVTOVAZ.



# The Alliance's Vision

The Renault-Nissan Alliance is the auto industry's most productive and longest-lasting cross-cultural collaboration. This unique partnership, which celebrated its 17th anniversary in March 2016, is a pragmatic, flexible business tool that can expand to accommodate new projects and partners worldwide.

The Alliance has strategic collaborations with numerous automakers, including Germany's Daimler AG and Mitsubishi Motors, and Dongfeng Motor Company Ltd., a joint venture in China. The Alliance also has a majority stake in AVTOVAZ, Russia's largest automaker, through a joint venture with state corporation Rostec Corp.

The Alliance is based on the rationale that substantial crossshareholding investments compel each company to act in the financial interest of the other, while preserving each company's distinct brand identity and corporate culture. Renault has a 43.4% stake in Nissan, while Nissan holds a 15.0% stake in Renault. On April 1, 2014, Renault and Nissan converged four key functions—Engineering, Manufacturing Engineering & Supply-Chain Management, Purchasing and Human Resources—to enhance performance and accelerate synergies. Each unit is headed by one dedicated Alliance Executive Vice President. Thanks to the convergence, the Alliance expects to generate €5.5 billion in synergies in 2018, up from more than €4.1 billion in 2015.

#### ▶ website

Click here for more information on the Renault-Nissan Alliance.

# **Alliance Objectives**

- The Alliance pursues a strategy of profitable growth with three objectives:
- To be among the top three automakers in terms of:
- 1 Technology innovation
- 2 Revenue and operating profit
- 3 Quality and customer satisfaction

# Technology Leadership

The Renault-Nissan Alliance's technology leadership is built on three key strategic pillars: zero-emission, connected vehicles and autonomous drive vehicles.

The Alliance is the leader in zero-emission mobility, accounting for about one in two electric vehicles on the road. The Alliance has sold more than 330,000 electric vehicles globally since its first EV, the Nissan LEAF, went on sale in December 2010. Nissan LEAF remains the world's best-selling EV.

The Alliance was an official sponsor of the United Nations' 21st Conference of the Parties (COP21), held in Paris in 2015, with a fleet of 200 electric vehicles. This was the largest EV fleet ever provided to an international conference.

In January 2016, the Alliance announced plans to launch more than 10 models with autonomous drive technology through 2020 via a step-by-step approach.



COP21 Photo credit: Olivier Martin-Gambier

# The World Business Council for Sustainable Development

The Renault-Nissan Alliance became a member of the World Business Council for Sustainable Development (WBCSD) this year, following Nissan's solo participation for more than 10 years. The WBCSD is an international association of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment.

# ENVIRONMENT

The increasing global population and the rapid growth of the world economy have complex and diverse connections with the global environment. They also affect the environment in numerous ways. It is essential to protect the world's irreplaceable natural capital—biodiversity and the air, water and soil that sustain it—for future generations. To balance economic growth with environmental preservation, the automotive industry is tackling a range of sustainability issues. These include climate change and energy measures, preservation of air quality and other natural capital, efficient use of mineral resources, management of chemical substances, waste reduction, recycling and health issues. Companies in the industry are also reforming their business structures to move away from dependence on fossil fuels.

As a global automaker, Nissan takes active steps to identify the direct and indirect environmental effects of its activities, as well as those of its business partners throughout the value chain. The company pursues needed technologies and processes to help minimize the impact of its products on people and communities throughout their lifecycle, while also engaging in communication with society. The company provides customers with innovative products and promotes effective use of energy and resources by increasing sourcing diversity, such as with renewable energy and recycled materials. In this way, Nissan is aiming to achieve its environmental philosophy of "a Symbiosis of People, Vehicles and Nature."

## **NISSAN'S ACTIONS**

Improvement in corporate average fuel efficiency (avg. in Japan, U.S., Europe and China, 2016; compared to 2005):



# ENVIRONMENT

# SCORECARD

# FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Zero-emission vehicle penetration	Introduce four EVs including Nissan LEAF	Number of models introduced	Launched e-NV200, the second EV model; launched the Venucia e30 for the Chinese market	Development underway	~~	Continue development	
	Prepare to introduce fuel-cell electric vehicle (FCEV) into market	Results of initiatives	Development underway	Development underway	~~	Continue development	
	Take global leadership in supplying batteries for electric-drive	Results of initiatives	Some processes for battery production started by Nissan Motor Iberica (Spain) and Dongfeng Motor Company Ltd. (China)	Start 30kWh Battery Production	~~	Undertake continuous production of batteries for EVs sold	
	Help create zero-emission society utilizing EVs and their derivative technologies with partners	Results of initiatives	End of the Yokohama Smart City Project, which achieved 25% CO <sub>2</sub> reductions through solar power, Vehicle to Home and EVs	Signed of Yokosuka EV Creation Project in 2015 for further adoption of EVs	~~	Continue promoting commercialization of Vehicle to Home and EVs with partners	Achieve 90% reduction in CO <sub>2</sub> emissions from new vehicles by 2050 (vs. 2000)
	Provide energy storage solution with used EV batteries through *4R* business	Results of initiatives	Began testing of high-capacity energy storage system built with used Nissan LEAF batteries in Osaka's Konohana Ward	In July 2015, the Nissan Advanced Technology Center (NATC) adopted an energy management system built from 24 used Nissan LEAF batteries	~~	Continue preparing for further expansion of reuse business	
Fuel-efficient vehicle expansion	Improve CAFE* by 35% from FY2005 (Japan, U.S., Europe, China) * Corporate average fuel economy; meet or exceed regulatory requirements	CAFE	Improved by 35.3%	Improved by 35.7%	_	Continue promoting expansion of fuel-efficient vehicles	
	Introduce top fuel-efficiency models in various classes	Model introductions	X-Trail (Europe) Murano (U.S.)	Maxima (U.S.) Lannia (China) NP300 Navara/Frontier (Europe) X-Trail HEV(Japan)	~~	Continue development	
	Introduce front-wheel-drive hybrid vehicles (HEVs) in C class and above; expand rear-wheel-drive HEV offerings	Model introductions	Development underway	X-Trail (Japan)	~~	Continue development	
	Promote plug-in hybrid vehicle (P-HEV) development	Model introductions	Development underway	Development underway	~~	Continue development	
	Introduce next-generation CVT globally; expand CVT sales to 20 million cumulative units from 1992	Number of CVT-equipped vehicle sales	Annual total: 2.95 million Cumulative total: 19.10 million	Annual total: 2.87million Cumulative total: 21.97million	~~	Expand penetration of CVT- equipped vehicles	
	Develop lightweight technologies with structure optimization, new materials and new manufacturing processes	Results of initiatives	Increased use of 1.2 gigapascal (GPa) Ultra High Tensile Strength Steel with High Formability in the new Murano, launched in North America, reducing total weight by 66 kg	37kg of weight reduction for MAXIMA by increased adoption of High Tensile Strength Steel Sheets (Ultra High Tensile Strength Steel) while 25% increase body rigidity	~~	Continue development	
	Contribute to CO <sub>2</sub> reduction with ITS technologies	Results of initiatives	Promoted widespread adoption	Traffic information service expand to major cities in China	~~	Promote widespread adoption	

# ENVIRONMENT

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Corporate carbon footprint minimization	Reduce $CO_2$ emissions of global corporate activities by 20% (t- $CO_2$ / vehicle, vs. FY2005)	CO <sub>2</sub> emission reduction rate	Reduced by 23.0%	Reduced by 22.4%	~~	Expand Nissan Energy Saving Collaboration (NESCO) diagnoses worldwide	2050 (t-CO <sub>2</sub> / vehicle, vs. 2005)
	Reduce by 27% in all manufacturing sites (t-CO <sub>2</sub> /vehicle, vs. FY2005)	CO <sub>2</sub> emission reduction rate	Reduced by 23.9%	Reduced by 22.3%	~~	Adopt three-wet paint process	
	Reduce by 6% in logistics (Japan, North America, Europe, China, t-CO <sub>2</sub> /vehicle, vs. FY2005)	CO <sub>2</sub> emission reduction rate	Reduced by 4.7%	Reduced by 8.5%	~~	Promote modal shift and increased filling rate	
	Reduce by 1%/year in offices (Japan, North America, Europe, China, t-C0₂/floor area, vs. FY2010)	CO <sub>2</sub> emission reduction rate	Reduced by 1.8%	Increased by 0.7% Mostly due to a revision in the national grid CO <sub>2</sub> coefficient in Japan	×	Expand Power Producers & Suppliers (PPS) adoption	
	Reduce by 1%/year in dealers (Japan, t-CO <sub>2</sub> /floor area, vs. FY2010)	CO <sub>2</sub> emission reduction rate	Increased by 14.4%	Increased by 20.0% Mostly due to a revision in the national grid CO <sub>2</sub> coefficient in Japan	×	Introduce energy-saving equipment in new outlets and expand PPS adoption	
New natural resource use minimization	Increase recycled material usage ratio per new vehicle for which production begins in FY2016 by 25% in Japan, U.S. and Europe	Recycled material usage ratio	Promoted activities	Promoted activities	~~	Promote activities	Increase recycled material usage ratio per vehicle by 70% (vs. 2010)
	Expand closed-loop recycling scheme with business partners	Results of initiatives	Bolstered cooperation with partners aimed at increasing recovery rate for interior plastic from scrapped vehicles	Promoted activities	~~	Promote activities	
	Improve end-of-life vehicle (ELV) recovery rate - Achieve top-level ELV recovery rate (Japan) - Promote proper treatment and resource recovery globally	Recovery rate	99.6% (Japan) Work carried out on system to recover, recycle used lithium-ion batteries globally	99.6% (Japan) Continuosly develop on system to recover, recycle used lithium-ion batteries globally	~~	Promote activities	
	Reduce scarce resource usage	Results of initiatives	Introduced magnets for HEV motors with reduced rare earth usage, starting with newly launched North American Pathfinder HEV and Infiniti QX60 HEV	Expanded adoption of developed magnets with lower rare earth usage and introduced to newly launched X-trail HEV	~~	Continue adopting developed technologies in new models, promote development of magnets with lower rare earth usage. Wider adaption of low cost catalyst	
	Reduce waste 2%/year in Japan and 1%/year worldwide	Waste reduction rate	Reduced by 3.5% (Japan) Reduced by 7.0% globally	Reduced by 4.6% (Japan) Reduced by 7.3% globally	~~	Expand resource NESCO diagnoses worldwide	
	Promote management and reduction of water usage at all production sites	Results of initiatives	Further bolstered usage reduction initiatives at vehicle production plants worldwide	Promoted activities	~~	Promote activities	
Environmental management promotion	Enhance and promote environmental management throughout supply chain (consolidated companies, sales companies, suppliers)	Results of initiatives	Participated in CDP supply-chain program and adopted global standards for supplier surveys	Further enhanced supplier engagement through CDP supply chain program and briefing sessions to suppliers	~~	Expand THaNKS activity to supplier's energy saving	Promote comprehensive and effective initiatives for supporting management decisions and achievement of Nissan Green Program goals
	Promote reduction, substitution and management of environment- impacting substances	Results of initiatives	Continued management of environment-impacting substances, creation of well-planned schedule for their reduction and use of alternative substances	Further strengthened management of environment-impacting substances	~~	Continue enhancing management of environment-impacting substances	
	Reduce environmental impact of products with lifecycle assessments (LCAs)	Results of initiatives	Continued activities for reducing environmental impact of products under TÜV Rheinland certification for LCA methodology	Continued to conduct LCAs in line with development of the vehicle with certified methodology	~~	Continue reducing environmental impact of products	



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 → GRI G4 Indicators
 → G4-EN18/G4-EN19/ G4-EN27/G4-EN28/ G4-EN33

# **THREE MAJOR ISSUES**

Nissan's ultimate goal is to limit the environmental impact and resource consumption of its corporate activities and its vehicles during their entire lifecycle to a level at which the planet can naturally absorb. Toward this goal, the company pursues activities in three key areas: reducing CO<sub>2</sub> emissions, promoting resource recycling and preserving air, water, soil and biodiversity.

# 1. Reducing CO<sub>2</sub> Emissions

The business structures of the automobile industry are changing greatly in the face of demand to reduce  $CO_2$  emissions and to move away from dependence on fossil fuels. As a global automaker, Nissan takes into account  $CO_2$  emissions through the whole value chain, including suppliers, from the procurement of raw materials to the transportation and operation of vehicles. Understanding the importance of balancing efforts in this area with its business activities, the company is striving to reduce emissions through such initiatives as developing new technologies and using renewable energy.

# 2. Resource Recycling

Nissan manufactures and markets its vehicles all around the world, utilizing resources in a variety of forms. With the basic approach of treating resources as limited, believing that they should be used as efficiently as possible and minimizing environmental impact, the company is working to make effective use of resources at every stage of its vehicles' lifecycles so as to sustainably offer the world the rich benefits of mobility.

# 3. Air, Water, Soil, Biodiversity

Humankind depends upon balanced ecosystems encompassing air, water, soil and living creatures. To maintain our irreplaceable world in a healthy state for future generations, Nissan is working to minimize its impact on ecosystems through its corporate activities and the lifecycle of its vehicles, making this approach a new part of its values as it continues to develop and champion environmentally friendly technologies.

# **ENVIRONMENTAL VISION**

# A Symbiosis of People, Vehicles and Nature

As a global automaker, Nissan takes active steps to identify the direct and indirect impacts of its business on the environment to help minimize them. The goal is to reduce the environmental impact and resource consumption of Nissan's corporate operations and its vehicles throughout their lifecycle to a level that can be absorbed naturally by the Earth. Toward this end, the company endeavors to leave as small an ecological footprint as possible.

Nissan aims to be a "Sincere Eco-Innovator." The company shows that it is sincere by taking a proactive stance toward addressing environmental challenges, reducing its real-world environmental impact and providing its customers with innovative products, technologies and services as contributions to a sustainable mobility society. It is actively working to contribute to the protection of the global environment through sustainable mobility to achieve "a Symbiosis of People, Vehicles and Nature."

# **NISSAN GREEN PROGRAM 2016**

To achieve its environmental vision, Nissan launched its six-year environmental action plan, Nissan Green Program 2016 (NGP2016), in fiscal 2011. NGP2016 is based on thorough assessments focusing on factors with critical impact. These assessments include input from energy and resource specialists around the world. NGP2016 also takes into account survey results in Japan that help gauge employees' understanding and opinions on environmental issues, Nissan's activities, and the company's business priorities.

NGP2016 focuses on reducing the environmental impact of Nissan's corporate activities and pursuing harmony between resource consumption and ecology. The company aims to promote diversity and resource circulation by means of efficient use and recycling of both energy and resources, expanding the application of green technologies that were developed under NGP2010, its previous environmental action plan. NGP2016 has four specific key actions that involve activities in development, manufacturing, sales, service and all other departments. These are zero-emission vehicle penetration, fuel-efficient vehicle expansion, corporate carbon footprint minimization, and new natural resource use minimization.

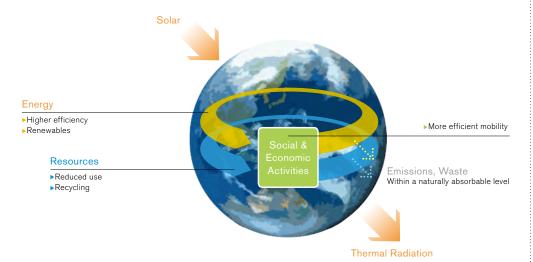
#### ▶ website

Click here for more information on Nissan Green Program 2016.

Thanks to Nissan Green Program activities, the company forecasts that

 $CO_2$  emissions from its new vehicles and corporate activities will peak in the 2020s and then subside, even taking into account plans to increase sales globally. The volume of new natural resource use will be maintained at the level of the 2010s.

# Promoting Energy and Resource Diversity, Efficiency and Recycling



Based on Beyond Growth: The Economics of Sustainable Development, by Herman E. Daly

# **ENVIRONMENTAL MANAGEMENT PROMOTION**

# **Company Organizations for the Environment**

To achieve the goals of Nissan Green Program 2016 (NGP2016), Nissan has created a global framework for environmental management and is setting targets and implementing closely coordinated action plans across all areas of its activity, from product and vehicle development, manufacturing, marketing and sales to other divisions.

To carry out its global environmental management, Nissan has established an organizational approach linking its various functions and regions. The Global Environmental Management Committee (G-EMC), including a board member as co-chair, meets twice annually. It determines with corporate officers chosen based on issues to be discussed the overall policies and content of reports put before the Board of Directors. The Corporate Strategy and Business Development Division, was launched to determine which proposals will be forwarded to the G-EMC and to assign specific actions to each division. This department is also responsible for the efficient management and operation of environmental programs based on the PDCA (plan, do, check, act) cycle.

In addition, Nissan has established committees to implement environmental management and activities at a deeper level in each of its regions. The European Environmental Management Committee was set up in 2012, followed by the Japanese Environmental Management Committee, the North American Environmental Management Committee, and the Chinese Environmental Management Committee in 2013. These groups report to regional management committees and cooperate with the Corporate Strategy and Business Development Division while reporting to the G-EMC.

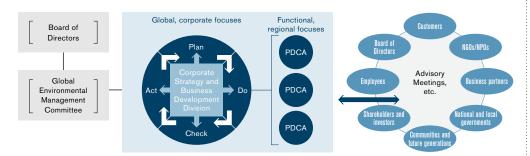
Nissan's strategy is built on the concept of listening to the views of wider society and identifying potential risks and opportunities. The company takes into account opinions from leading experts and organizations and examines assessments from rating organizations, using this information to analyze its goals and activities and enhance its environmental measures.



Sincere Eco-Innovator

Nissan's Framework for Global Environmental Management

Environmental Management Organization



# Stakeholder Engagement

Nissan analyzes its use of resources and energy, the impact on the environment and how it can reduce that impact throughout the value chain. Through these analyses, the company identifies stakeholders at each stage, from the extraction of resources needed to make vehicles to manufacturing, shipping, use and disposal of end-of-life vehicles. Through a broad range of approaches, it gains an understanding of stakeholder views and the diverse needs of society.

As one example, members of Nissan's Board of Directors hold meetings with the participation of researchers and experts who lead the environmental field in the academic and industrial worlds, as well as leading businesspeople from various sectors. They discuss the direction and appropriateness of Nissan's business strategies; this input is considered in those strategies going forward.

#### Customers, shareholders, investors, business partners, suppliers, NGOs/NPOs, local communities, national and local governments, future generations, employees and members of Nissan's Board of Directors.

# Materiality Assessment

The automotive industry is subject to environmental regulations and standards around the world, covering areas like CO<sub>2</sub> and other exhaust emissions, energy, fuel efficiency, noise, material resources, water, chemical substances, waste and recycling.

These regulations are becoming more stringent every year. Consumer needs and wishes concerning environmental performance are also changing.

To meet these various social demands, Nissan uses materiality assessments To analyze potential opportunities and risks. The company identifies those priority issues viewed by both Nissan and stakeholders as important, sets necessary policies and targets for tackling them effectively and works them into its environmental strategy.

# Enhancing Environmental Management Based on ISO 14001

As of January 2011, the Nissan Global Headquarters and all other main Nissan facilities in Japan, including those for R&D, production and logistics, along with all product development processes, have acquired integrated ISO 14001 certification for environmental management systems. The company has appointed an environmental management officer to oversee Nissan's environmental activities. Through steady application of the PDCA (plan, do, check, act) cycle, the company is improving its environmental performance. The coordinated goals set by the environmental management officer for the entire company are cascaded

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 For the results of the company's materiality assessments, see the Materiality Matrix 2015. down to the employees working in all facilities through local offices.

Nissan's ISO secretariat oversees companywide efforts, and the local offices in Japan are responsible for activities at each facility and division and for coordinating the proposals from employees. The secretariat and local offices engage in discussions at least once a month to confirm the progress made toward established goals, share best practices, improve management systems, draw up plans for the next fiscal year and communicate requests from local facilities and divisions. The items discussed are reported to the environmental management officer twice a year (once during the management review conference) so that the company can decide on needed improvements.

To confirm management is functioning properly, Nissan annually undergoes audits by third-party organizations and carries out its own internal audits of its environmental systems and environmental performance to strengthen the company's measures, based on the PDCA cycle.

The company has also obtained ISO 14001 certification at its main production plants outside Japan. Nissan's policy is to extend environmental management systems with these same criteria to regions of new expansion.

# **Product Development Policy**

Nissan has introduced "QCT-E," adding an environmental component to the traditional QCT indices of quality, cost and time, and has crafted a global environmental management policy, setting targets for environmental performance in all areas of its business.

Under Nissan Green Program 2016 (NGP2016), the company's environmental action plan, Nissan annually invests 70% of its research and advanced engineering budget in environmental technologies. The company is also promoting its Common Module Family concept, sharing platforms and module components with its Alliance partner Renault. Savings from reduced costs are invested in new solutions, including cutting-edge environmental technologies.

# **Raising Employee Awareness**

Nissan's environmental activities are enabled by the knowledge, awareness and competency of its employees. Based on ISO 14001 activities, the company conducts employee education rooted in NGP2016 regarding reduction of CO<sub>2</sub> emissions, energy and water consumption and waste. In addition, education regarding environmental accident prevention, including

management of hazardous materials, is provided every year to all employees, including those from affiliated companies working in Nissan production facilities. At production plants, ongoing improvements of employee competency to reduce environmental impact are promoted through not only education and training programs but also the quantitative evaluation of each employee. The content of these training programs is updated once a year.

In Japan, Nissan implements its own curriculum for the education provided to new employees during orientation and to mid-ranking and management personnel during the seminars to deepen their understanding of environmental issues surrounding the auto industry, as well as the substance of NGP2016. The company also holds "town hall" style meetings that bring executives together with employees. Employees can stay up to date on Nissan's latest environmental initiatives through features in the intranet, internal newsletters, and in-house video broadcasts. All employees also receive an Environmental Policy Card with a pledge to pursue personal environmental activities, which they carry at all times.

Overseas, Nissan shares information and provides education to employees through the intranet, videos, events and various other communication approaches suited to each region.

# Employee-Initiated Activities and Evaluation System

In fiscal 2008, Nissan added the "environment" factor to the range of *kaizen* activities carried out by quality control (QC) circles. This creates a mechanism that encourages employees to think proactively and propose ideas to improve environmental aspects of Nissan's business. Managers encourage employees' active participation by communicating how these QC circle activities are linked to achievement of the goals in Nissan Power 88, the company's mid-term business plan. The ideas proposed by employees go to managers and QC circle secretariats for assessment of their potential contribution to environmental improvement, among other factors, after which Nissan implements them.

The knowledge and skills of the frontline employees on CO<sub>2</sub> emission reduction, energy management, water conservation and waste and landfill reduction have been compiled in a best-practices manual and shared among global facilities. A system to reduce cooling-tower water use was born from this activity. Nissan also holds contests in some facilities during officially designated months in Japan to keep employees motivated to participate in environmental activities. These include the

Click here for more information on Nissan Power 88. Water Usage Reduction Idea Contest in June and the Waste Reduction Idea Contest in 3R month, October.

Nissan uses various methods to reward employees for their contributions to environmental improvement activities. One is inclusion of these activities in the "commitment and target" annual performance goals used at some Japanese and overseas locations. This system assesses employees' achievement of goals, reflecting this in performance-related elements of bonuses. Employees are also recognized for environmental improvement through Nissan Prizes presented by the CEO or other executives, awards given by plant heads, and "THANKS CARD" recognition from managers for excellent work or achievements.

# Working with Consolidated Production Companies

Nissan encourages its consolidated production companies in a variety of markets to acquire ISO 14001 certification and to undertake other environmental initiatives based on their respective policies. Meetings with major consolidated production companies in Japan are held to exchange views on cooperation toward the goals outlined in NGP2016. The meetings lead to a deeper shared understanding of the details of NGP2016 and the initiatives undertaken by each company.

# Working with Dealerships

Nissan's dealerships in Japan have introduced an original approach to environmental management based on ISO 14001 certification called the Nissan Green Shop certification system. This system is managed through internal audits conducted by the dealerships every six months, in addition to regular annual reviews and certification renewal audits carried out every three years by Nissan Motor Co., Ltd. As of the end of March 2016, the system has certified 2,700 outlets of 157 dealers, including parts dealers.

Nissan conducts an annual survey of its dealerships in Japan, collecting comments and requests regarding Nissan's environmentally friendly vehicles and other environment-related initiatives. The findings are used to guide actions toward improved performance and are incorporated into the PDCA cycle at all dealerships.

## Working with Suppliers

The purchasing divisions of Nissan and Renault ensure full understanding of CSR and compliance with regulations in the supply chain through *The* 

Renault-Nissan Purchasing Way and the Renault-Nissan CSR Guidelines for Suppliers. In the environmental aspect, they carry out supply-chain management ∞ in line with the Nissan Green Purchasing Guidelines.

Based on Nissan Green Program 2016 (NGP2016), Nissan holds regular annual environmental briefing sessions for suppliers when it fully shares targets, action plans and understanding of what constitutes environmental impact. Since fiscal 2012, it has conducted surveys to gather information from suppliers on their environmental performance in areas including CO<sub>2</sub> emission levels, water use and waste. In fiscal 2014, Nissan further expanded its activities by adopting the supply-chain program run by CDP, an international nonprofit organization that manages a global system for disclosure of companies' environmental impact and strategies. In fiscal 2015, it worked to improve the accuracy of performance data with the cooperation of CDP and other external specialists. Further, the company institutes mandatory questionnaires concerning handling of environment-impacting substances and environmental management when selecting each supplier.

# Communication and Assessment of Environment-Related Activities

Companies today are called upon to disclose a wide range of information about how they are managing risks and handling issues related to such environmental issues as climate change and natural resources. Nissan makes detailed disclosure of its environmental performance on its website for stakeholders, including investors, rating agencies and other specialists in accordance with Global Reporting Initiative (GRI) guidelines. Among data disclosed are CO<sub>2</sub> emission and waste discharge levels, as well as the amount of energy, water, materials and other resources consumed. Nissan's communication efforts also include briefings to describe its environmental initiatives.

Nissan was selected from among more than 6,000 global corporations for inclusion on the Climate A List in the Global Climate Change Report 2015 issued by CDP, becoming the only Japanese automotive company chosen by them. It also scored a perfect 100 in the organization's Climate Disclosure Leadership Index (CDLI).

Nissan received its perfect score for working toward its vision of reducing "well-to-wheel"  $CO_2$  emissions from new vehicles by 90% by the year 2050 (compared with levels from 2000) and for its transparent disclosure of environmental information. Nissan was named to the Climate A List due to its championing of the Nissan LEAF and other zero-emission vehicles and its

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#### Click here for more information on supply-chain management.

These international guidelines, published by the NGO Global Reporting Initiative, promote actions by companies to define overall policy direction toward environmental, social and economic development and to disclose information on their overall plans and specific initiatives. implementation of such innovative initiatives as LEAF to Home by which Nissan LEAF owners can use electric power from their vehicles to help cut energy use at home during peak hours. Nissan's efforts to reduce CO<sub>2</sub> emissions in the manufacturing process were also noted.

The company also finished second in the manufacturing sector on the 19th Nikkei Environmental Management Survey. The survey, conducted by Nikkei Inc., examines and evaluates how Japanese corporations balance business concerns with environmental policies, assessing the performance of 1,737 companies in the manufacturing sector and 1,493 companies in non-manufacturing industries, including retail, restaurants, power and gas and construction. Nissan achieved a total score of 489 points out of a maximum of 500 across five categories and was the only manufacturing company to receive a perfect score in the global warming countermeasures category.

This result was the fruit of implementation of the mid-term environmental action plan NGP2016—which extends to sales and service divisions as well as development, manufacturing and purchasing—and ongoing *kaizen* activities. The survey in particular praised global energy-saving measures from the Nissan Energy Saving Collaboration (NESCO) teams.

NESCO expert teams conduct energy-saving audits at Nissan's production sites by inspecting the way energy is used, identifying waste and suggesting improvements. NESCO has developed a global training program based on energy-saving know-how developed in Japan. There are currently seven teams in Japan and four outside Japan. In 2014, as part of Alliance activities, NESCO began contributing to Renault's efforts to reduce CO<sub>2</sub> emissions.

# Lifecycle Assessment to Reduce Environmental Impact

Nissan uses the lifecycle assessment (LCA) method to evaluate and comprehensively assess environmental impact in all stages of the vehicle lifecycle, from resource extraction to production, transport, customer use, and vehicle disposal. LCAs are also carried out for new technologies as they are introduced with the goal of developing more environmentally friendly vehicles.

 For details on the LCA for the Nissan LEAF, etc., see the CSR data section in this report.

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Company calculations show that over its lifecycle the Nissan LEAF produces CO<sub>2</sub> emissions up to 40% lower than gasoline-powered vehicles of the same class. In 2010, this assessment was certified by the Japan Environmental Management Association for Industry. Nissan has

continued to conduct LCAs in line with development of the vehicle.

In December 2013, TÜV Rheinland in Germany also certified Nissan's LCA methodology. This certification is based on ISO 14040/14044 standards and guarantees the soundness of the environmental impact calculations in Nissan's product LCAs. Nissan bases LCAs for new vehicles on its certified methodology; the company's certification was renewed in fiscal 2015. The company continues to lower its vehicles' environmental impact by adopting new technologies and more efficient processes in manufacturing, aiming for further CO<sub>2</sub> emission reductions over the lifecycle of its new vehicles.

## TÜV Rheinland certificate



# **REDUCING CO<sub>2</sub> EMISSIONS**

The United Nations Framework Convention on Climate Change states that to stabilize the climate system it is necessary to keep average temperatures from rising more than 2 degrees Celsius on a global basis. Based on this assumption, Nissan has calculated that "well-to-wheel" CO<sub>2</sub> emissions for new vehicles will need to be reduced by 90% by 2050 compared with levels in 2000. The efficiency of internal combustion engines will need to improve in the short term to help achieve this. Over the long term, Nissan also aims

to increase the adoption of zero-emission vehicles—battery electric and fuel-cell electric (EVs and FCEVs)—and to promote the use of renewable energy to power these technologies.

Nissan is advancing technological development on the basis of a zero-emission future scenario. Specifically, it is concentrating its efforts on two pillars: zero emission, which involves widespread use of zero-emission vehicles in a holistic approach to promote a sustainable society; and PURE DRIVE, ■ which reduces CO<sub>2</sub> emissions by developing fuel-efficient internal combustion engine technologies and introducing them to the market. Nissan has also calculated that it needs to reduce CO<sub>2</sub> emissions from

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 Click here for more information on PURE DRIVE. its corporate activities by 80% by 2050 compared with 2005 levels. Accordingly, it plans to continue its energy efficiency measures, leverage the power storage ability of EV batteries and expand its use of renewable energy.

# **Our CO2 Reduction Scenario**

New cars' well-to-wheel CO<sub>2</sub> emissions Well-to-wheel CO<sub>2</sub> emission reductions by future powertrain (%) (%) 100 100 80 80 60 60 40 40 20 20 90 0 0 2000 2010 2020 2030 2040 2050 Internal Electric Fuel-cell Internal combustion engine electric (FY) combustion vehicle (non-hybrid vehicle) (EV) vehicle engine (hybrid vehicle) (FCEV)

> Created by Nissan on the basis of the Intergovernmental Panel on Climate Change Fourth Assessment Report.

# ZERO-EMISSION VEHICLE PENETRATION

Electric vehicles (EVs) demonstrate that what is good for drivers and the planet is also good for business. Nissan, including its Alliance with Renault, is engaged in a comprehensive approach that involves boosting production and sales of EVs and other activities coordinated in a variety of partnerships for popularization of EVs.

# Zero-Emission Leadership for the Alliance

Nissan's commitment to sustainable mobility addresses concerns over climate change and supports sustainable profits for Nissan while satisfying customers' demands for more environmentally friendly vehicles. Greater use of renewable energy, such as solar, wind and hydropower, in the future will continue to improve EVs' environmental contribution as electricity generation becomes cleaner. Increased use of batteries as energy storage devices will also boost the market for EV batteries after their initial use for transportation power.

In 2010, Nissan began sales of its mass-produced 100% electric vehicle, the Nissan LEAF. In 2014, Nissan expanded its leadership in zero-emission mobility into the LCV segment with the launch of the e-NV200, the company's second all-electric vehicle, in the European and Japanese markets. As of 2015, the new Nissan LEAF—powered by a 30 kWh lithium-ion battery that makes possible a driving range of 280 km in JC08 mode—was on sale in Japan, North America and Europe.

# Nissan LEAF Sales Exceed 200,000

The Nissan LEAF is powered by a lithium-ion battery pack and an electric motor and emits no  $CO_2$  or other exhaust emissions during operation. The Nissan LEAF offers excellent, fun-to-drive performance, with smooth, strong acceleration and quiet delivery across a speed range comparable to that of other models, as well as great handling stability realized by well-balanced weight distribution. All of these characteristics have earned the Nissan LEAF more than a hundred industry awards, including Car of the Year award in major markets (Japan, the United States, Europe, etc.), since its debut in 2010.

The Nissan LEAF has been introduced in 47 markets with sales steadily increasing. In March 2016, total sales worldwide exceeded



200,000 vehicles, making the Nissan LEAF the best-selling EV in the world. While the low environmental impact of EVs is attractive, consumer awareness of other characteristics, such as the low-charging and operation costs and superior acceleration and steering performance, is likely to have been a factor in the strong sales.

The Nissan LEAF also has advanced features for customer convenience. Advanced IT systems allow the driver to control some functions remotely, via a smartphone or other device, and can help the driver find nearby charging stations and the most energy-efficient routes.

Nissan has worked with local governments, corporations and other entities to deploy charging infrastructure and encourage adoption of EVs. The company aims to leverage the valuable experience gained by having Nissan LEAFs in use around the world to stimulate further development and popularization.

The company's calculations show that the Nissan LEAF and other EVs produce considerably less CO<sub>2</sub> emissions over their entire lifecycle, from manufacturing to end-of-life disposal, compared to gasoline-powered vehicles of the same class.

EV batteries can do more than just provide power for driving. As energy storage devices, they can play a key role in supporting the rollout of renewable energy with intermittent output, such as solar and wind power. By contributing to the shift to renewable energy, EVs play an essential role beyond transportation to help achieve a low-carbon society.



# First EV Taxis in Canada

In November 2015, Canada's first all-electric taxi service was launched in Montreal, Quebec, after the operator Taxelco bought 24 Nissan LEAFs equipped with 30 kWh lithium-ion batteries. Taxelco was founded by XPND Capital, which plans to expand the service to put 2,000 EV taxis on the streets of Montreal by 2019.

# **New Website Responds to Nissan LEAF Questions**

In November 2015, the company launched a website for the Japan market answering customer questions about its most popular EV: "Nissan LEAF Q&A: Real Owners. Real Answers." The respondents, approximately 100 owners chosen as Nissan LEAF official ambassadors, provide information based on personal experiences regarding such aspects as ease of use, regional charging infrastructure, power usage in snowy conditions and acceleration performance. Answers are made public to ensure they can be read widely.

# The e-NV200, a Practical, Sustainable City Delivery Vehicle

Based on the Nissan NV200, a multipurpose commercial van, the e-NV200 combines the interior roominess and versatility of the NV200 with the acceleration performance and refinement of an EV. It has been produced at Nissan's Barcelona Plant in Spain since June 2014 and, as of March 2016, is sold in 26 countries, including Japan and a number of European nations. The e-NV200 is also used by taxi services in Barcelona and Amsterdam and has been adopted in Japan by a wide range of customers from urban delivery businesses to local authorities.

Compared to commercial vehicles using internal combustion engines, the e-NV200 reduces operating costs and contributes to an enhanced environmental image thanks to the vehicle's zero exhaust emissions and reduced noise pollution. Additionally, the vehicle offers smooth, strong acceleration performance while being extremely quiet.

The inclusion of a hydraulic brake system makes the vehicle's regenerative braking more effective, enabling a driving range of 185 km to 190 km on a full charge (in JC08 mode). Two 100-volt power outlets that can draw a maximum

# ▶ page\_24

 Click here for more information on the Nissan LEAF lifecycle assessment. of 1,500 watts of power from the battery are installed in the front-seat side and the cargo area (of the Japan model). They provide a convenient and safe electrical power source that comes in handy for offsite jobs, outdoor events and construction work, or in the case of an emergency.

The driver can also manually set the remaining battery level. By halting the power supply automatically with anything from 2 to 11 of 12 bars remaining on the battery gauge, the driver can ensure that the vehicle has enough energy left in the main battery pack for the ride home.

Construction companies that have adopted the e-NV200 as a power source for onsite work have given positive feedback. As they do not use fuel-powered generators, it reduces noise around the site, and because the construction site is quiet, communication is easier, improving efficiency.

With five-seat and seven-seat wagon versions available, the vehicles can also be used for carrying passengers.



As a mobile power source, the e-NV200 has potential for application in a range of business contexts.



The e-NV200 gives Japanese and European urban goods delivery and taxi businesses the opportunity for zero-emission operations.

# **Fuel-Cell Electric Vehicles**

Fuel-cell electric vehicles (FCEVs) are another type of zero-emission vehicle producing no CO<sub>2</sub> or other harmful emissions. Powered by electricity generated from hydrogen and oxygen, FCEVs emit only water during driving. Nissan believes that in building a sustainable mobility society, both FCEVs and EVs are important from an energy diversity perspective. Nissan's FCEVs make use of proprietary fuel-cell technology, high-power electric systems and control systems refined in EV development, as well as high-pressure gas storage technologies from compressed natural gas vehicles (CNGVs).

To advance FCEV research and development and make possible their wider adoption, in 2013, Daimler AG, Ford Motor Company and Nissan, under the Alliance with Renault, signed a unique three-way agreement for the joint development of a common fuel-cell system. In July 2015 Toyota Motor Corporation, Honda Motor Co., Ltd. and Nissan announced a new joint support project for the development of hydrogen station infrastructure in Japan. In addition to partially covering the operating costs of hydrogen stations, the three automakers have also agreed to help infrastructure companies deliver the best possible customer service and create a convenient, hassle-free refueling network for owners of FCEVs.

# Pursuing a Zero-Emission Society

The widespread use of zero-emission vehicles, which produce no CO<sub>2</sub> emissions during operation, is an effective way of achieving sustainable mobility. The auto industry must go beyond producing and selling zero-emission vehicles to help put the necessary infrastructure in place to ensure that the vehicles are economical to use. No company can achieve this on its own. The Renault-Nissan Alliance is promoting the development and production of zero-emission vehicles and the construction of infrastructure, forging numerous zero-emission partnerships with national and local governments, electric power companies and other organizations.

Nissan is also taking part in a comprehensive range of initiatives focusing on zero-emission mobility, including the production of lithium-ion batteries, secondary use and recycling of batteries, construction of vehiclecharging infrastructure and standardization of charging methods with other manufacturers. Increased uptake of zero-emission vehicles will bring changes to people's lifestyles, laying the groundwork for a sustainable mobility society. Nissan provides more than just EVs themselves; it embraces the new values that they represent as well.

# Building a Zero-Emission Society with EVs



An organization established with the aim of increasing quick charger installations. indispensable for the further diffusion of electric vehicles and standardization of charging equipment. CHAdeMO is made up of automakers, electric utilities. charger manufacturers. charging service providers and other supporting groups.

# China Launch of the Venucia e30, Venucia's First 100% EV

In September 2014, Dongfeng Nissan Passenger Vehicle Company, a division of Nissan's joint venture with Dongfeng Motor Company Ltd., launched the Venucia e30 as local brand Venucia's first 100% electric vehicle. The Venucia e30 will bring Chinese consumers a reliable and enjoyable EV experience at affordable running costs.



The Yokosuka EV Creation Project

On June 3, 2015, Nissan signed the Yokosuka EV Creation Project partnership agreement with the city of Yokosuka, Kanagawa Prefecture, targeting further adoption of EVs.

The company has designated the Oppama Plant in Yokosuka as a "mother plant" for EV production, promoting zero-emission mobility through comprehensive activities including establishment of charging infrastructure and encouraging the adoption of EVs, as well as vehicle production and sales. Meanwhile, Yokosuka has pioneered policies from the initial stage of creating EV demand, such as introducing purchasing subsidies, supporting installment of charging stations and conducting a project based around the use of Nissan LEAFs as taxis.

There are plans to develop partnership agreement activities further with the goal of boosting the proportion of EVs to 10% of all owned vehicles by fiscal 2020. Both Nissan and Yokosuka prioritize building charging infrastructure in housing complexes and employee parking lots to encourage a shift to EV use. The company will contribute to these activities by providing various information and carrying out vehicle demonstrations.

# Providing Infrastructure to Support Zero-Emission Vehicles

Nissan is encouraging local governments, public and commercial facilities and others in Japan to install quick chargers. It is also continuing to increase the number of Japanese Nissan dealerships with quick chargers, which stood at 1,700 as of March 2016.

Quick chargers, which can charge batteries from zero percent up to 80% capacity in around 30 minutes, are a key part of the infrastructure needed for the widespread adoption of EVs. Nissan launched its quick chargers in 2011, and in the following year, the company improved them to make chargers quieter and the connector easier to use, as well as enabling on-the-spot payment.

In May 2014, Nissan jointly established a new company, Nippon Charge Service (NCS), with other Japanese automotive manufacturers to promote installation of chargers for electric-powered vehicles (including EVs and plug-in hybrid vehicles). Under NCS management, the companies aim to provide a convenient charging network service letting drivers charge their vehicles anywhere with a single card.

Nissan has also started working with companies that support the spread of EVs by installing EV chargers at their workplaces to make it easier for employees to commute using the Nissan LEAF.

In the United States, Nissan launched its "No Charge to Charge" program, which provides free access to selected charging stations for two years with the purchase or lease of a new Nissan LEAF. As of January 2016, the program is running in 26 cities where Nissan LEAF sales are high, including San Francisco, Los Angeles, Seattle and Portland, and the company plans to expand to more cities in the future.

In Europe, too, Nissan is working with companies in the energy industry and others to install quick chargers compliant with the CHAdeMO standard. It is also collaborating with BMW to encourage the spread of EVs and PHEVs by boosting the number of quick-charging stations that can be used by vehicles from both companies. Plans to build a national grid in South Africa and 120 stations in 19 U.S. states were announced in May and December 2015, respectively.

As of March 2016 there were more than 10,000 CHAdeMO-compliant quick chargers worldwide.

# Installing Chargers at Workplaces

Nissan is putting measures in place so that its employees can make their own contributions to the achievement of a zero-emission society. One example is the company's program to help employees become Nissan LEAF owners and ambassadors for the vehicle, expanded in fiscal 2015. As part of this program, normal chargers are being installed in employee parking lots at Nissan business locations around Japan, with the total projected to reach 2,000 by the end of fiscal 2016.

By March 2016, some 1,100 charging points were in place, including 300 at the Tochigi Plant, 152 at the Nissan Technical Center, and 140 at the Kyushu Plant. Employees find it easier to commute in a Nissan LEAF when they know they can recharge the battery at work. The more Nissan employees become Nissan LEAF owners, the more they can contribute to lower  $CO_2$  emissions.

# Nissan EVs: Contributing to Realization of Smart Grids

Nissan EVs can provide electricity to households through the Power Control System. The LEAF to Home power supply system lets a Nissan EV share the electricity stored in its high-capacity lithium-ion batteries with an ordinary home once the car is connected to the home's electricity distribution panel via its quick-charging port. In this way EV batteries can provide additional value. The connector conforms to CHAdeMO, a fast-charging protocol used in global markets where Nissan EVs are sold, and ensures a high level of versatility, stability and reliability.

Nissan and Enel, Europe's second largest power company in terms of installed capacity, have also signed an agreement targeting a revolution in energy usage management. The two companies teamed up to develop an innovative system allowing EV fleets to operate as "energy hubs," thereby contributing to the realization of smart grids.

# **Overseas Production of Lithium-Ion Batteries**

In Japan, NEC Corporation and Nissan's joint-venture company, Automotive Energy Supply Corporation (AESC), produces lithium-ion batteries for Nissan EVs at its Zama facility. The facility assembles modules consisting of multiple sheet cells packed into compact metal cases with attached terminals. These are put together in battery packs at Nissan's Oppama Plant and then fitted into vehicles.

Nissan also manufactures the Nissan LEAF and EV batteries overseas. In the United States, the company has produced lithium-ion batteries at its Battery Plant and EVs at its Vehicle Assembly Plant in Smyrna, and in Europe, at its Sunderland Plant in the United Kingdom.

# The Nissan New Mobility Concept

The Nissan New Mobility Concept is an ultracompact 100% electric vehicle that was developed in response to rising numbers of senior citizens and single-member households, along with increasing use of automobiles for short-distance trips by up to two people. Even smaller than a "kei" minicar, the driver has excellent visibility and a good feel for the dimensions of the vehicle, making it an ideal choice for residential neighborhoods and other areas with narrow streets and poor visibility, as well as regional cities and islands pursuing compact-city policies.

Since fiscal 2011, with cooperation from Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Nissan has held driving trials together with corporations and local governments to conduct tests and surveys. Following the MLIT's January 2013 announcement of an authorization system for use of ultracompact vehicles on public roads, Nissan is currently testing vehicles in 22 areas. To date the vehicles have mainly been used for tourist purposes as part of regional revitalization, but they are now being applied to a fuller range of purposes. For example, in Tokyo's Koto Ward, the municipal office is using five as official cars for transporting small numbers of people over short distances, while an electrical construction company in the ward uses another five to transport people between its business locations.

From October 2013 to September 2015, Nissan conducted "Choimobi Yokohama," an urban one-way car-sharing service, using the Nissan New Mobility Concept in Yokohama, Kanagawa Prefecture. Around 13,000 people registered as members, mainly in central Yokohama. In some 60,000 journeys, vehicles traveled a total of around 220,000 kilometers.

Nissan fully leverages the knowledge and information acquired from all its nationwide projects, offering advice on new uses for EVs and ways to improve traffic flow and implementing smart mobility for the next generation.

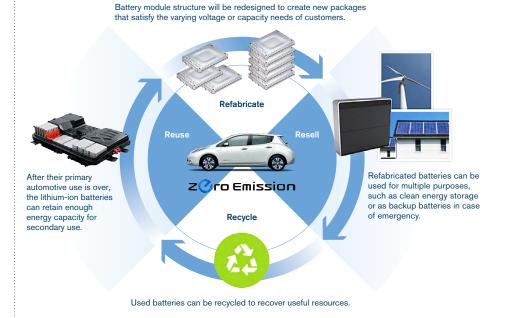
The "Choimobi Yokohama" service using the Nissan New Mobility Concept.

# Joint Venture to Promote Second-Life Use for Batteries

Lithium-ion batteries used in Nissan's EVs retain capacity well beyond the useful life of the vehicles themselves. "4R" business models—which reuse, resell, refabricate and recycle lithium-ion batteries—allow their effective use for energy storage solutions in a range of applications, thus creating a much more efficient energy cycle of battery use.

As the EV market expands, Nissan sees a need to utilize reusable lithium-ion batteries more effectively. In 2010, it launched 4R Energy Corporation, a joint venture with Sumitomo Corporation. This company is developing and testing to use EV batteries as part of a stationary energy storage system. Japan is expected to see rising demand for such systems as part of energy storage and backup power systems that also feature solar panels on homes or business structures, and 4R Energy has already started sales of them for houses and apartment buildings.

# 4R Concept



4R Energy is actively developing a range of storage systems built with used Nissan LEAF lithium-ion batteries. In addition to conducting an ongoing experiment with a large-capacity storage system in Osaka's Konohana Ward since 2014, it expanded its activities in November 2015 by launching a power system stabilizer test in Satsumasendai, Kagoshima Prefecture. It has also started testing a small-capacity storage system at a commercial facility in Okinawa Prefecture, refining its performance assessment for used module units and selection standard technologies. In July 2015, the Nissan Advanced Technology Center (NATC) adopted an energy management system built from 24 used Nissan LEAF batteries.

# FUEL-EFFICIENT VEHICLE EXPANSION

Demand for motor vehicles is expected to continue to rise. Mature markets are recovering from the global recession. Emerging markets continue to expand. Nissan is pursuing the greatest possible improvements to the fuel efficiency of internal combustion engines and introducing more fuel-efficient vehicles to the market.

# Improved Corporate Average Fuel Efficiency

Nissan strives to develop technologies to maximize the overall energy efficiency of internal combustion engines and improve transmission performance. It is also working to boost the efficiency of hybrid systems that gather and reuse kinetic energy captured from braking. Nissan's core technologies in this area are lithium-ion batteries, Intelligent Dual Clutch Control Hybrid and Xtronic transmission (Continuously Variable Transmission: CVT) systems. Considering space within the vehicle, usage, price and other factors, the company selects the optimum fuel-efficiency technologies for particular vehicles and launches them in the market. The aim is to reduce fuel consumption and CO<sub>2</sub> emissions without sacrificing fun and ease of driving. Nissan is steadily launching new products in its line of particularly low-emission, fuel-efficient PURE DRIVE vehicles.

By fiscal 2016, Nissan targets a 35% improvement in corporate average fuel efficiency from the fiscal 2005 level (as measured in average fuel efficiency in the Japanese, U.S., European and Chinese markets). In fiscal 2014, the target was achieved ahead of schedule.

## Corporate Average Fuel Efficiency Improvement



## Top-Level Efficiency Due to Improved Engines and CVT

Current internal combustion engine vehicles lose approximately 70% of their fuel's energy as waste heat. Nissan aims to minimize energy loss and increase fuel efficiency by improving combustion efficiency, as well as reducing intake and exhaust resistance and friction.

Nissan is expanding its range of fuel-efficient engines. The Oashqai's new 1.2-liter gasoline direct-injection turbo engine has boosted fuel efficiency by up to 11%. Technologies including a low-pressure cooled exhaust gas recirculation system and mirror bore coating in the Juke's 1.6-liter gasoline direct-injection turbo engine have increased fuel efficiency by up to 10%. The Note's engine has improved thermal efficiency and added regenerative control and Idling Stop systems, while the Maxima's new V6 3.0-liter engine, with around 60% of its components redesigned, has boosted fuel efficiency by up to 15%. The Infiniti Q60 has added efficiency without compromising power performance through its V6 3.0-liter gasoline, direct-injection turbo engine, which combines high output with fuel economy. The NP300 Navara/Frontier has boosted fuel efficiency some 20% with the replacement of its former 2.5-liter direct-injection turbo diesel engine with a 2.3-liter direct-injection turbo diesel engine

Nissan's Xtronic transmission (CVT) provides "stepless" gear shifting, enabling the optimal RPM level for the vehicle at any speed. This allows for a balance of smooth, powerful driving and fuel efficiency when accelerating. Nissan employs Xtronic transmission in a wide range of As of time of sale: Maxima, 25 MPG fuel economy combined city/ highway driving; NP300 Navara/ Frontier (2WD), 6.3L/100km. vehicles, from "kei" minicars to mid-size cars in the 3.5-liter class. The new-generation Xtronic transmission (for use in cars with 2.0- to 3.5-liter engines) has been installed in products worldwide since 2012. This system's maximum ratio coverage of 7.0, and friction reduction of around 40%, improve fuel efficiency by up to 10% (in-house measurement using U.S. Environmental Protection Agency combined mode).

In fiscal 2015, these technologies helped to give the Maxima and NP300 Navara/Frontier class-leading fuel efficiency at their respective launches in the U.S. and European markets.

Nissan's goal is to ship 20 million Xtronic-equipped vehicles, with their fuel-efficiency benefits, by fiscal 2016 from their first launch in 1992, thereby helping to reduce global CO<sub>2</sub> emissions. Nissan sold 2.87 million Xtronic vehicles in fiscal 2015, bringing the cumulative total to 21.97 million, and achieved our target of 20 million units sold by 2016 one year ahead of schedule.





# A Broader Lineup of Hybrid Vehicles

Hybrid vehicles, which run on a combination of a gasoline-powered engine and an electric motor, offer improvement of fuel efficiency and considerable reductions in CO<sub>2</sub> emissions. Nissan has developed a unique hybrid system using a high-output lithium-ion battery together with a single motor for both drive and regeneration, as well as an Intelligent Dual Clutch Control system in which two clutches are linked in parallel, one to the motor and one directly to the engine and transmission. Vehicles using the system deliver both fuel efficiency and powerful responsiveness. Nissan introduced the system into rear-wheel-drive vehicles in 2010 and front-wheel-drive vehicles in 2013; as of fiscal 2015, it had been expanded to a total of nine models.

The X-Trail Hybrid, launched in 2015, achieves class-leading fuel efficiency through expanded EV driving range and optimization of system operation modes, which make it 25% more fuel efficient than a traditional gasoline-powered vehicle.

# Progress in Plug-in Hybrid Vehicles

Plug-in hybrid electric vehicles (PHEVs) feature both an internal combustion engine and one or more electric motors, similar to those of electric vehicles, on which they are capable of running. The motors are powered by a small battery pack. The batteries can be charged from an external source or by a generator driven by the engine. Nissan is developing PHEVs with a view to a future launch.

# **Toward Lighter Vehicles**

Vehicle weight reduction makes important contributions to improve fuel efficiency. Nissan is promoting vehicle weight reduction by optimizing vehicle body structure, developing better forming and joining techniques, and substituting materials. For example, to streamline structure, it is reducing component thickness by optimizing layout of support elements. In the manufacturing process, the company is opting for internal component resins that have been foamed to reduce weight.

In the new TITAN XD rolled out in North America in fiscal 2015, engineers achieved a 5 kg weight reduction with increased use of Advanced High Tensile Strength Steel in the frame and a 7 kg reduction by using resin materials in the under-frame cover. The Maxima on sale in fiscal 2015 also saw a 37 kg weight reduction, despite also enjoying a  As of time of sale: X-Trail, 20.6 km/L. 25% increase in body rigidity, thanks to an increased proportion of Advanced High Tensile Strength Steel in its overall makeup.

By optimizing the material mixture, Nissan developed its own 1.2 gigapascal (GPa) Ultra High Tensile Strength Steel with High Formability, the world's first such material to combine these levels of tensile strength and workability. In fiscal 2013 this steel was used in the Infiniti Q50 (marketed in Japan as the Skyline), followed by the Murano in North America. Nissan will continue to use 1.2 GPa Ultra High Tensile Strength Steel to create lighter cars with thinner components, reducing the amount of material used while allowing production on the same lines, thereby reducing total costs. The company plans to expand usage of these materials to 25% of all production (measured by vehicle weight) for new vehicles marketed from 2017 onward.

# Reducing Congestion and Enhancing Environmental Performance with ITS

An automobile's fuel efficiency depends not just on the car's own capabilities but also on the driving environment and the way it is driven. Nissan is using Intelligent Transport Systems (ITS) and actively working to create infrastructure that will help to improve the traffic environment.

Under commission from Japan's New Energy and Industrial Technology Development Organization (NEDO), Nissan has been working with the Beijing Municipal Commission of Transport since 2010. It is conducting tests with a dynamic route guidance system (DRGS) using IT terminals and eco-driving support to alleviate traffic congestion in the city.

In one experiment, around 12,000 ordinary drivers in Beijing's Wangjing district used Portable Navigation Devices with DRGS and ecodriving support. Results from the experiment, which lasted around one year, showed that DRGS cut travel time by 5.1% and increased fuel economy by 7.6%. Enabling drivers to avoid congested roads led to the dispersion of traffic flow, enhancing overall speed within the area. Furthermore, by helping users cultivate better driving habits, eco-driving support increased fuel economy by 6.8%.

A simulation conducted at the same time calculated that if 10% of all traffic in Beijing used DRGS, travel speed throughout the city would increase by approximately 10%, and both fuel consumption and CO<sub>2</sub> emissions would decrease by approximately 10%.

The Beijing Municipal Commission of Transport presented Nissan

with an award for its major contributions to easing congestion, saving energy and improving the environment in Beijing through this successful project. In an official publication, China's Ministry of Commerce also gave the company a Corporate Leadership Award. Nissan is further developing these activities and conducting research projects aimed at raising air quality using ITS and EVs in cooperation with the Chinese government and universities. The company is working actively to improve urban environments and air quality.



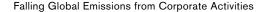
# **CORPORATE CARBON FOOTPRINT MINIMIZATION**

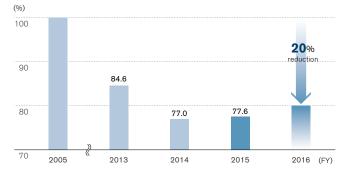
In a world often said to be carbon-constrained, reducing CO<sub>2</sub> emissions is a task to be tackled by all companies. Nissan is improving energy efficiency and promoting renewable energy adoption to reduce CO<sub>2</sub> emissions.

# A 20% Emission Reduction in Corporate Activities

By fiscal 2016, Nissan aims to reduce  $CO_2$  emissions associated with its corporate activities by 20% globally from 2005 levels, as measured by the index of  $CO_2$  emissions per vehicle (total emissions generated from Nissan global corporate activities divided by the total Nissan vehicle sales volume). In fiscal 2011, Nissan strengthened its management and broadened the scope of measurable objectives to include logistics, offices and sales companies in addition to production sites. At the same time, the company

expanded its emission-related initiatives, introducing high-efficiency equipment, energy-saving measures and the use of renewable energy. Nissan met its reduction target in fiscal 2014, and the result in fiscal 2015 was a 22.4% reduction from the fiscal 2005 t-CO<sub>2</sub>/vehicle level.





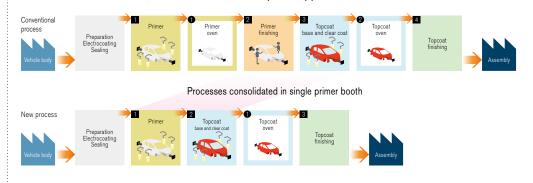
Nissan leased out approximately 350,000 square meters of unused land in Oita Prefecture for solar power generation in May 2013, and the roof of group company Nissan Kohki Co., Ltd.'s Samukawa Plant for the same purpose in January 2014. To reach CO<sub>2</sub> emission goals, Nissan has set a target of raising the usage rate of renewable energy in its global business activities to 9% by fiscal 2016. Nissan is taking three approaches to increasing the adoption of renewable energy, considering conditions where its production sites are located. These are power generation in company facilities, purchase of power from other companies, and leases of land, facilities and other Nissan assets to power producers.

# **Energy Saving in Global Production**

Most CO<sub>2</sub> emissions in the manufacturing process come from the consumption of energy generated by fossil fuels. Nissan engages in a variety of energysaving activities in the manufacturing process in pursuit of the lowest energy consumption and CO<sub>2</sub> emissions of any automobile manufacturer. In production technology, the company is introducing highly efficient equipment, improving manufacturing techniques and adopting energysaving lighting. Another key approach is Nissan's three-wet paint process. Approximately 30% of all CO<sub>2</sub> emissions from plants come from the painting process. Shortening or eliminating baking stages within this process brings about a reduction in emissions.

The three-wet paint process adopted by Nissan removes the need to bake in between the primer layers and the topcoat layers. Instead, layers are applied successively before baking, achieving a reduction in  $CO_2$  emissions of more than 30%, according to Nissan calculations. In 2013, the company introduced this process in Nissan Motor Kyushu Co., Ltd., the Smyrna Plant in the U.S., the second Aguascalientes Plant in Mexico (which started operations in November 2013) and the Resende Plant in Brazil (which started operations in February 2014). At the Kyushu Plant, the company was able to adopt the three-wet process with no shutdown of production lines and successfully shorten total production time.

# Three-Wet Paint Process (Combined Primer and Topcoat Application)



# Oven process

Reduces CO<sub>2</sub> emissions by applying primer and topcoat (base coat and clear coat) layers in succession, combining two processes (① and @ in the upper diagram) into one (① in the lower diagram).

To reach the defined objectives for CO<sub>2</sub> emissions and the use of energy, Nissan solicits the necessary facility proposals from each global site, preferentially allocating investment based on the benefit in CO<sub>2</sub> reduction compared to project costs. By making value of carbon one key factor in internal evaluations, Nissan enables more efficient investment and greater competitiveness.

Nissan plants use finely controlled lighting and air conditioning for low-energy use, low-loss operations. The company is promoting CO<sub>2</sub>

emission reduction activities and introducing cutting-edge energy conservation technology from Japan in its plants worldwide. Meanwhile, Nissan plants in all countries learn and share best practices with each other.

In addition, Nissan Energy Saving Collaboration (NESCO) diagnoses energy loss at the plants and proposes new energy-saving countermeasures. These proposals could amount to a potential reduction in CO<sub>2</sub> emissions of 53,754 tons in fiscal 2015, according to Nissan calculations. A NESCO team was established for Japan in 2003, and teams for Europe, Mexico and China in 2013. As a result of these activities, Nissan was awarded the 2016 Energy Conservation Center Japan Chairman's Award. The company also finished second in the manufacturing sector of the 19th Nikkei Environmental Management Survey. It received a perfect score of 100 points in the global warming countermeasures category of the survey, conducted by Nikkei Inc.

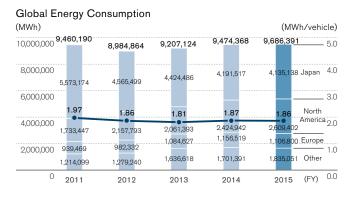
By establishing additional cogeneration systems in its Yokohama Plant, Nissan works together to supply the nearby J-Oil Mills Inc. facility with steam through pipes laid down under public roads, thereby maximizing cogeneration efficiency. Using this method, it plans to reduce CO<sub>2</sub> emissions by 5,700 tons per year.

In December 2014, the company began a "partial procurement scheme," sourcing part of the energy used at its plants and other major business locations through Japan's Power Producers & Suppliers (PPS) system, which involves both electric utilities and specified electricity market entrants. Previously each business location selected one major utility company or PPS provider to cover its electricity needs, an approach that allowed selection of a provider with a lower-carbon generation footprint. Facilities like factories, though, with their high demand, generally had to procure electricity from a utility company with proven capacity.

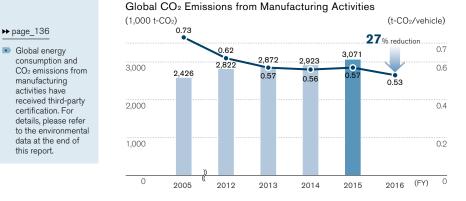
The new partial procurement scheme allows all facilities to secure the stable power supply they need while also reducing related CO<sub>2</sub> emissions and slashing costs at the same time. To date the scheme has been implemented at eight Nissan facilities, including the Nissan Technical Center, Tochigi Plant, Oppama Plant, Yokohama Plant and Zama Operation Center, and at eight partner company locations, including those of Nissan Shatai, Nissan Kohki and Calsonic Kansei.

Renewable energy in the form of 10 wind turbines supplies 6,500 kW, or around 5% of the power used by the Sunderland Plant in the United Kingdom. Solar panels also produce approximately 200 kW at Nissan's plant in Spain. The first Aguascalientes Plant in Mexico uses energy generated from biomass gas and wind power, achieving a renewable energy usage rate of 50% in 2014. In addition, Nissan's Zama Operation Center in Japan is developing small-scale hydropower generators, capable of creating around 0.5 kW of power from a drop of 2.5 meters from drainage pipes, and testing their usage in production plants.

With these activities, Nissan has set a target of reducing  $CO_2$ emissions by 27% below the fiscal 2005 level by fiscal 2016 at all of its production sites, as measured by the index of " $CO_2$  emissions per vehicle" (total emissions generated from global Nissan vehicle manufacturing sites divided by the total Nissan vehicle production volume). In fiscal 2015,  $CO_2$ emissions per global vehicle were approximately 0.57 tons, a reduction of 22.3% from the fiscal 2005 level.



\* Figures are for the Nissan Group worldwide, including consolidated companies.



<sup>\*</sup> Figures are for the Nissan Group worldwide, including consolidated companies.

#### More Efficient Logistics and Modal Shifts

In 2000, Nissan began sending chartered trucks for pickup and delivery of parts, an uncommon method among automobile manufacturers in Japan at the time. This approach—adopted widely across the company, including at its overseas manufacturing sites—has increased global operational efficiency. Nissan works together with suppliers to optimize the frequency of deliveries and transport routes and to improve packaging specifications for better loading ratios so fewer trucks are required. The company is also actively expanding a modal shift from the use of trucks to rail and maritime transport. Through a 2014 expansion of this approach to include cooperative transport of production parts with other OEMs, in addition to complete vehicles and service parts, the company is targeting further efficiency in this area. The company also reduces transportation distance by sourcing necessary production components for plants from surrounding areas as much as possible.

Nissan engineers devise efficient packaging for the huge number of parts of different shapes and materials that go into automobiles. Through simultaneous-engineering logistics activities, Nissan works from the design stage to create parts and develop new vehicles with consideration for transportation efficiency, as well as to reduce the part shipments per vehicle. The aim is to decrease transport volumes.

In container transport, Nissan has long made use of 40-foot "high cube" containers and runs software-based simulations to reduce wasted container space. As a result of these activities, the container filling rate for parts rose from 89.6% in fiscal 2010 to 94.2% in fiscal 2015.

The company constantly reviews transport methods and is currently undertaking a modal shift to rail and maritime transport. Some 70% of completed vehicles in Japan are now transported by sea. Part shipments from the Kanto area around Tokyo to Nissan Motor Kyushu Co., Ltd. are conducted nearly all by rail and ship. The Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has recognized Nissan as an outstanding enterprise for this modal shift to sea transport.

At Nissan sites outside Japan, transport methods are selected to best match the local geographical conditions. Transport of completed vehicles is increasingly shifting from truck to rail and ship, depending on the destination. In China, the company is increasing the proportion of completed vehicles that are transported domestically by ship or rail. Since 2010, Nissan has also been promoting the use of energy36

# ➡ website

 Click here for more information on Nissan's energyefficient car carriers.

Total emissions generated from transportation to Nissan manufacturing sites and sales outlets in Japan, North America, Europe and China divided by the total number of vehicles transported.

 Global Headquarters, Sagamihara Parts Center, Nissan Education Center and Customer Service Center (all in Kanagawa Prefecture). efficient vessels for sea shipments of its vehicles. By 2015, the fleet had grown to include five energy-efficient car carriers. ➡

While expanding its global logistics operations, Nissan is increasing efficiency and implementing a modal shift in transportation, targeting a 6% reduction in CO<sub>2</sub> emissions by fiscal 2016 from the fiscal 2005 level, as measured by the index of CO<sub>2</sub> emissions per vehicle. If fiscal 2015, CO<sub>2</sub> emissions per global vehicle were approximately 0.38 tons, a decrease of 10.2% from the fiscal 2005 level.

#### Our Efforts at Dealerships and Offices

Nissan is promoting  $CO_2$  emission management at all business locations and dealerships in Japan, as well as at bases of operations in North America, Europe and China. It aims to reduce total emissions per floor area by 1% each year.

At business locations in Japan, Nissan is expanding ecological initiatives including digitization of pay slips. Nissan's sales outlets are also continually working to increase energy efficiency: many have adopted high-efficiency air conditioning, insulation films, ceiling fans and LED lighting. During renovation work, some outlets have installed lighting systems that make use of natural daylight and insulated roofs. In addition, Nissan sources clean energy for which CO<sub>2</sub> emissions and costs have been taken into account through Japan's PPS system. In 2015, approximately 150,153 MWh of clean energy was supplied to four Japanese business locations, sincluding the company's Global Headquarters. Nissan is also broadening supply to dealerships from Nissan and other PPS systems. These systems supply around 930 sales outlets in the Kanto, Chubu, Tohoku, Kansai and Kyushu areas with around 136,366 MWh of energy, equivalent to an annual reduction of some 23,789 tons in CO<sub>2</sub> emissions. The company's NESCO teams have also expanded the scope of their activities beyond production plants to contribute to reducing CO<sub>2</sub> emissions in the Nissan Technical Center.

The company's efforts go beyond CO<sub>2</sub> management. Nissan is pursuing other environmentally friendly policies, such as improving its video and telephone conference facilities and using Microsoft's Office Live Meeting web conferencing service to bring participants in multiple locations together when they need to share documents. This reduces the number of business trips needed worldwide, improves workplace efficiency and reduces costs.



Solar panels are on the roofs of some Kanagawa Nissan dealerships. Power from the panels is supplied to dealerships through the PPS system.

#### **NEW NATURAL RESOURCE USE MINIMIZATION**

REAL PROPERTY IN

Nissan is making efforts to use resources more efficiently and to diversify its supplies with renewable resources and recycled materials. The company aims to address the risk of rising costs or depletion of mineral resources caused by growing demand for them and to reduce the environmental impact of their extraction.

#### Increasing Usage of Recycled Material to 25%

Economic development in emerging countries is rapidly increasing demand for mineral and fossil resources. Some forecast that all currently known mineral resources will have been extracted by 2050 if present trends continue. Some mining sites currently in operation and new exploration sites are located in areas where local ecosystems need to be preserved, and there is concern about the environmental effects of topsoil excavation, deforestation and wastewater.

To address these issues, Nissan is taking measures to minimize the volume of newly extracted natural resources. As well as using resources more efficiently, it is increasing the proportion of renewable resources and recycled materials and increasing diversification. The company's recycling efforts are based on the policy that once a natural resource is extracted, it should continue to be used, while maintaining quality, to minimize environmental impact. Nissan has set a target of increasing the recycled

material usage ratio per new vehicle for which production begins in fiscal 2016 by 25% in Japan, the United States and Europe. In the long term, through promotion of activities, the company aims to maintain the total volume of new natural resource usage at the 2010 level.

#### Nissan's Closed-Loop Recycling System

Closed-loop recycling is a way of recycling waste generated during vehicle production and scrap from end-of-life parts into recycled material that has equal quality as new resources, using it as material in the same type of products. With this method, the same material can be used repeatedly, thus greatly reducing CO<sub>2</sub> emissions and the environmental impact over the product lifecycle. The company is focusing its efforts on closed-loop recycling of steel, aluminum and plastic. These materials, which account for a large proportion of the content of a vehicle, have a major environmental impact when they are extracted and require a large amount of energy for production and disposal.

Nissan is working to reduce the steel and aluminum scrap left over in the manufacturing process. The company is also working globally with business partners to collect and reuse this scrap as material for new vehicles. To further reduce natural resource usage, it uses electric-furnace sheet steel made from steel scraps in the Rogue, the Murano and other vehicles produced in North America. End-of-life aluminum wheel rims are also collected for recycling in the form of new wheels or chassis components. In fiscal 2015, Nissan collected about 2,770 tons of wheel rims.

In Japan, Nissan is collecting plastic in the form of finished bumper scrap generated at its plants and turning it into recycled plastics in a finished bumper reprocessing line set up in the Oppama Plant. Recycled plastics have already been given new life as bumpers in the Nissan LEAF and many other new vehicles. This initiative has been expanded to Nissan's joint venture in China, Dongfeng Motor Company Ltd., and in 2014 to production of replacement bumpers.

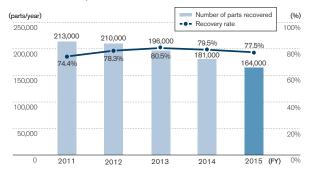
Exchanged bumpers collected from dealerships are being recycled as materials under covers and for other components. By enhancing its bumper return scheme, in fiscal 2015, Nissan collected and recycled about 164,000 pieces of bumpers, representing 77.5% of bumpers removed at Japanese dealerships.

Nissan's copper usage has also been rising due to the recent increased sales of hybrid vehicles and EVs. The company has begun using scrap left over from manufacturing as an additive during foundry processing.









#### **Recyclability Rate and Recovery Rate**

Nissan considers the three Rs—reduce, reuse and recycle—starting with the design stage for new vehicles. It takes into account the whole lifecycle when designing and developing vehicles, ensuring the ease of dismantling and recycling after they are scrapped. Since fiscal 2005, all new models launched in the Japanese and European markets have achieved a 95% or greater recyclability rate.

Calculated based on 1998 Japan Automobile Manufacturers Association definition and calculation guidelines (in Japan) and ISO 22628 (in Europe). Nissan also carries out experimental studies to optimize processing and improve the recovery rate for end-of-life vehicles (ELVs). The studies first aimed to establish methods for processing waste oil, waste liquids, lead and other substances that impact the environment and now focus on reuse of valuable materials. Feedback from the studies has led to improvements in dismantling techniques and has aided the company's product design division in choosing suitable materials and designing vehicles that are easier to dismantle. Nissan calculates that the recovery rate for its ELVs in Japan has consistently been 95% or greater since fiscal 2006; the recovery rate for fiscal 2015 was 99.6%.

#### Reducing Scarce Resource Usage

Hybrid vehicles and electric vehicles (EVs) emit less CO<sub>2</sub> over the lifecycle of the product than gasoline-powered vehicles, but scarce resources called rare earths are a necessary component of their motors. Uneven distribution of rare earth elements and the forces of demand and supply give rise to concern about price changes, making it important to reduce their usage.

In 2012, Nissan developed a new electric motor that requires 40% less dysprosium (Dy) compared to conventional EV motors. This motor is currently used in the Nissan LEAF. Nissan is successively installing the reduced-Dy motor in its hybrid vehicles, including the X-Trail Hybrid in 2015. The company is conducting technical research on further reductions and has the ultimate goal of achieving zero usage of Dy in other components as well.

Nissan aims to reduce and optimize the usage of other rare earth elements. The plan is to reduce annual use of rare earth elements by 30% by fiscal 2016 compared to the projected usage if no particular countermeasures had been implemented from fiscal 2011 onward.

#### **Thorough Measures for Waste Materials**

Nissan actively promotes measures based on the three Rs in its production processes whenever possible, striving to minimize the waste generated and maximize recycling efficiency by thoroughly sorting waste. Efforts have paid off. Since fiscal 2010 the company in Japan has achieved a 100%-recovery rate at all of its production sites, including five manufacturing plants, two operations centers and five affiliates. In Mexico, the first Aguascalientes Plant achieved this in 2011. Nissan is working to bring this rate to an industry-leading level in each global region.

Nissan has been making great efforts to reduce the number of wooden pallets and cardboard boxes used in import and export parts shipping. The company began replacing them with units made from steel more than 30 years ago, rolling out plastic substitutes more than 20 years ago. These are foldable and can be returned for reuse. Nissan has also been working with its Alliance partner Renault to expand use of globally standardized, returnable containers. Through design activities carried out concurrently with logistics operations, Nissan has recently been considering ways to optimize the shape of parts from the development stage, thus helping to reduce the packaging materials required.

Through these efforts, Nissan plans to reduce the amount of waste from its production factories by 2% annually in Japan and by 1% annually worldwide compared to waste levels expected if no special steps had been taken from fiscal 2011 onward.

#### Sales of Nissan Green Parts

Parts with the potential for recycling include those reclaimed from ELVs, as well as those replaced during repairs. In Japan, Nissan collects and thoroughly checks the quality of these secondhand parts. Those that receive a passing grade are sold through its sales outlets as Nissan Green Parts. Nissan sells these parts in two categories: reusable parts, which are cleaned and tested for quality before sale, and rebuilt parts, which are disassembled and have components replaced as needed.

#### ▶ page\_120

 For details, refer to the environmental data at the end of this report.

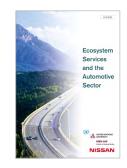
▶ website

Click here for more information on Nissan Green Parts.

#### PROTECTING THE AIR, WATER, SOIL AND BIODIVERSITY

The United Nations Millennium Ecosystem Assessment report issued in 2005 concluded that ecosystem services evaluated had degraded over the past 50 years. Many scientists believe that humans have changed the Earth's ecosystems more rapidly and extensively than in any comparable period in history. Humankind depends on a number of ecosystem services, including provision of food and fresh water, climate regulation and protection from natural disasters. The automotive industry must recognize both its impact on ecosystems and its dependence on these services. Companies today face the pressing need to balance environmental preservation and economic progress as they pursue their business activities.

Using methods identified in the Corporate Ecosystem Services Review, Nissan has evaluated its value chain from the extraction of material resources to vehicle production and operation. Based on the results, the company has identified its three priority areas as an automobile manufacturer: energy sourcing, mineral material sourcing and water usage. Nissan has followed up by positioning the business risks and opportunities and re-evaluating and further developing its traditional environmental initiatives. In 2010, Nissan published "Ecosystem Services and the Automotive Sector," a report collating the outcome of this work. Company calculations in June 2013 showed that more than 20 times as much water was used upstream in the supply chain than by Nissan itself.



#### **Cleaner Exhaust Emissions**

Nissan proactively sets strict environmental goals and targets as it pursues development of cleaner combustion technologies, catalysts for purifying emissions and other solutions. The ultimate goal is for automotive emissions to be as clean as the atmosphere. The company introduces vehicles that meet emission regulations in each country in a timely manner. Nissan aims to reduce the environmental impact of society as a whole by offering vehicles with highly efficient, cutting-edge emission-reduction technologies at reasonable prices.

Nissan's Sentra CA, released in the United States in January 2000, was the first gasoline-powered vehicle in the world to receive Partial Zero Emissions Vehicle (PZEV) certification, so in compliance with the emission requirements of the California Air Resources Board.

The Bluebird Sylphy, released in Japan in August 2000, became the first vehicle to gain certification from the Ministry of Transport (now the Ministry of Land, Infrastructure, Transport and Tourism) as an Ultra-Low Emission Vehicle (U-LEV). In addition, this model became Japan's first vehicle to receive Super Ultra-Low Emission Vehicle (SU-LEV) certification in 2003.

Later, the X-Trail 20GT was the first vehicle in the world to meet Japan's 2009 Emission Regulations, among the most stringent in the world; it was launched in 2008, the year before the regulations came into effect. The X-Trail 20GT carries a diesel filter that traps and eliminates particulate matter, NOx absorption and oxidation catalysts and an M9R clean diesel engine developed through the Renault-Nissan Alliance. The company has thus overcome the difficult challenges of making diesel vehicle exhaust cleaner, achieving both energy efficiency and reduced CO<sub>2</sub> emissions. An X-Trail 20GT with a 6-speed automatic transmission (including manual mode) was introduced in 2010.

Furthermore, Nissan is working to improve air quality through the use of Intelligent Transport Systems (ITS) that tackle traffic congestion and other urban environmental issues.

 ▶ page\_33
 ✓ Click here for more information on Nissan's ITS initiatives. The 2009 emission standards stipulate reductions of NOx by 47% and particulate matter by 64% from the levels required by the 2005 emission standards (applicable to vehicles weighing more than 1,265 kg). The regulations went into effect for new models in October 2009 and have been applied to existing models and imported cars since September 2010.

#### ▶ page\_131

 Click here for more information on how Nissan is meeting emission regulations in different countries. For more details, see the CSR data section in this report.

This vehicle is no longer produced.

- PZEV vehicles must meet requirements in the areas of Super Ultra-Low Emission Vehicle tailpipe emission level and zero-evaporative emissions, be equipped with an onboard diagnostic system and have an extended warranty of 150,000 miles or 15 years.
- U-LEV: Ultra-Low Emission Vehicles produce 75% less nitrogen oxide (NOx) and nonmethane hydrocarbon (NMHC) than the 2000 emission standards level.

SU-LEV: Super Ultra-Low Emission Vehicles produce 75% less emissions than the 2005 emission standards level.

Developed by the World Resources Institute in cooperation with the World Business Council for Sustainable Development and Meridian Institute, based on the U.N. Millennium Ecosystem Assessment.

▶ website

 Click here for more information on "Ecosystem Services and the Automotive Sector."

#### Plant Emission Management

Nissan thoroughly implements systems and control standards at its production plants to reduce the amount of air pollutants emitted during operations. The company's own air pollution control targets are more stringent than those mandated by the countries in which it operates.

In Japan, Nissan has taken strict measures for emissions of NOx and SOx pollutants from its factories, reducing the amount of these emissions to one quarter of the levels emitted in the 1970s. Painting lines and other processes in vehicle production consume large amounts of heat. Nissan has lowered NOx and SOx emissions by introducing low-NOx burners in the ovens and boilers that provide heat for painting lines and by switching from heavy oil and kerosene to fuels with low SOx emissions for these ovens and boilers.

A current challenge is the reduction of volatile organic compounds (VOCs), which readily evaporate and become gaseous in the atmosphere. These compounds account for approximately 90% of the chemicals released in Nissan's vehicle production processes. The company is working to increase the recovery of cleaning solvents and other chemicals and to reduce the amounts of these substances emitted from its plants ahead of implementation of new regulations in each country where it operates.

Nissan is also introducing water-based paint lines that limit VOC emissions to less than 20 grams per square meter of painted surface. The company has adopted these lines in the Nissan Motor Kyushu Co., Ltd. Plant as well as at two plants in Aguascalientes in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the United States, and the Huadu Plant in China. Nissan has set a target for fiscal 2016 of a 15% reduction in VOC emissions by painted surface area from fiscal 2010 levels.

#### Nissan's Tough Voluntary Standards

Stricter controls on environment-impacting substances are being implemented in countries around the world. Examples include the European ELV Directive, the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation, which went into force in June 2007, and Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, Etc. To help minimize the potential release of formaldehyde, toluene and other VOCs in vehicle cabins, the Japan Automobile Manufacturers Association has launched a voluntary program that calls for all new models launched in Japan from April 2007 to meet standards set by the Japanese Ministry of Health, Labor and Welfare for concentration levels of 13 compounds in vehicle interiors.

Nissan is strengthening its management of environment-impacting substances, adhering to a well-planned schedule for their reduction and advancing the use of alternative substances. In 2005, the company drew up policies regarding the use of substances scientifically recognized as being hazardous or carrying high hazard risks, as well as those identified by NGOs as dangerous. In 2007, these policies, which restrict environmentimpacting substances even more than the domestic laws of the countries where it operates, were rolled out globally.

Based on these policies, the company has developed the Nissan Engineering Standard (NES) for the "Restricted Use of Substances." The standards identify the chemical substances whose use is either prohibited or controlled. Nissan applies them in selecting all materials, components and parts used in its vehicles from initial development onward. For example, four heavy metal compounds (mercury, lead, cadmium and hexavalent chromium) and the polybrominated diphenyl ether (PBDE) flame retardant have been either prohibited or restricted in new type models (excluding OEM vehicles) launched globally since July 2007. To control VOC use in car interiors, Nissan has adopted the voluntary targets of the Japan Automobile Manufacturers Association as its own standards for global operations and is reviewing and reducing their use in materials and adhesives for seats, door trim, floor carpet and other parts.

Every year, Nissan revises the "Restricted Use of Substances" NES to reflect changes in international laws and regulations and to add new substances covered by its voluntary standards. This NES incorporates banned and restricted substances as defined in the Global Automotive Declarable Substances List (GADSL), prepared by a global team made up of auto manufacturers, parts suppliers and materials manufacturers.

Together with suppliers, Nissan builds and maintains communication and management systems internally and within its supply chain. For example, the company discloses information and is registered with and submits REACH reports to the relevant authorities about the vehicles and parts produced in or imported to Europe from Japan and other countries (including some from the United States). The company also complies with Classification, Labeling and Packaging of Substances and Mixtures (CLP) regulations.

#### Water-Use Management

As the global population grows, water use increases and water scarcity becomes a more serious problem. Climate change also has the potential to bring about reductions in glacial water resources and changes in precipitation patterns, further driving the need for water usage reduction.

Plants producing Nissan vehicles and parts are located all over the world, and they all use water as part of the production process. The company is making efforts to manage and reduce water usage at all of its production plants. It plans to achieve a 15% reduction from fiscal 2010 levels in water usage per vehicle produced by fiscal 2016. To achieve this, Nissan has built a reservoir for rainwater at the Chennai Plant in India and has installed wastewater recycling equipment at the Chennai Plant, the Huadu Plant in China, and the Oppama Plant in Japan. The company is implementing best practices globally to reduce water usage.

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 For more details, see the CSR data section in this report.

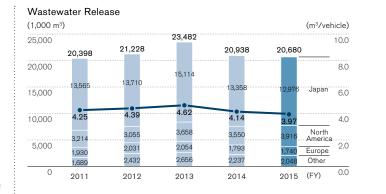
Nissan is also working to reduce water usage at its Global

Headquarters by processing rainwater and wastewater from kitchens and other sources to use for flushing toilets and watering some plants.

#### **Cleaner Effluent Through Wastewater Treatment**

Nissan thoroughly processes wastewater at its various plants. Wastewater from the company's two plants in Aguascalientes, Mexico, is used to maintain greenery on the sites, with no offsite discharge.

Nissan is also strengthening water pollution measures in its Japanese plants. In preparation for unexpected occurrences, such as the discharge of oil, it has attached water quality sensors to the discharge ports of wastewater treatment facilities. Discharge of water outside the grounds is automatically suspended if water quality problems are detected.



# SAFETY

Popularization of the automobile has transformed people's lives, offering them mobility, convenience and the pleasure of driving. In recent years, the automotive industry has achieved dramatic functional advances, with autonomous driving technologies and various safety and driver-support solutions showing particular progress. Today, as society undergoes major structural shifts, technological innovation in the automotive sector is counted on to help address a range of issues toward the realization of a society with less urban traffic congestion and more ways for senior citizens to move about safely and smoothly.

Nissan designs and engineers cars that embody the "pleasure and richness of driving," while prioritizing a high level of real-world safety. More than 90% of accidents are the result of human error. The company's goal is to achieve virtually zero avoidable traffic accidents involving Nissan vehicles that result in serious or fatalities and serious injuries. This means, of course, working to improve passenger safety in its vehicles, for example by equipping them with Autonomous Drive technologies. It also means promoting educational activities that raise safety awareness among drivers, pedestrians and the community.

#### NISSAN'S ACTIONS

Number of fatalities/serious injuries from accidents involving Nissan vehicles compared to 1995 level (Japan, 2014):



# SAFETY

# SCORECARD

#### FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Innovative technology development and active promotion of safety toward a safer mobility society	Establishment of quantitative reduction targets for Nissan-related traffic fatalities, etc., real-world analysis of accidents to build safer cars and implementation of driver-education programs	serious injuries involving Nissan vehicles (figures available approx. two years later due to	Japan: 63% reduction U.S.: 55% reduction Europe (U.K.): 64% reduction (All as of the end of December 2014)	Figures to be calculated once data is released	Ι	Continue development of safety technologies	Aim for ultimate goal of virtually zero fatalities and serious injuries involving Nissan vehicles



### NISSAN'S APPROACH TO SAFETY

Nissan takes the fundamental approach of pursuing "real-world safety" and aims to help create a society with virtually zero avoidable traffic accidents. There were 4,117 deaths resulting from traffic accidents in Japan in 2015, an increase of 4 from the previous year following 14 successive years of decline. The World Health Organization (WHO) reports that approximately 1.25 million people lose their lives each year in automobile accidents around the globe, warning that if urgent steps are not taken, accidents could become the fifth leading cause of death worldwide by 2030.

Nissan set a target of reducing the number of fatalities and serious injuries involving Nissan vehicles to half the 1995 level by 2015. In Japan, the United States and Europe (the United Kingdom), this target has already been reached. Today, Nissan is engaged in activities aimed at halving this number once again in these markets by 2020. The ultimate goal is a world with virtually no accidents that lead to death or serious injury.

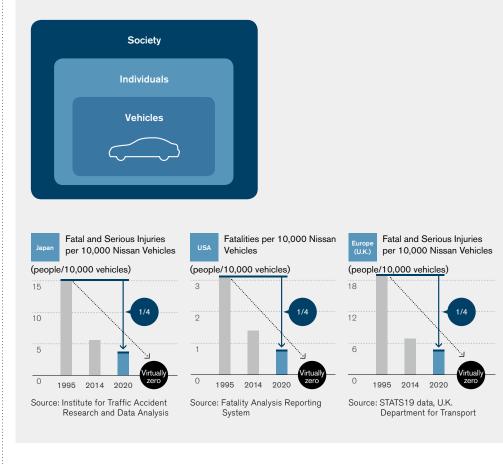
To reduce traffic accidents and achieve this goal, it will be necessary to develop and deploy effective safety technologies in as many vehicles as possible. Comprehensive efforts will also be needed that encompass individuals and the driving environment as well. Nissan uses a triple-layered approach, taking measures in the areas of vehicles, individuals and society to contribute to the creation of a truly safe automobile society.

#### Nissan's ultimate goal:

To reduce the number of fatalities and serious injuries involving Nissan vehicles to virtually zero.

#### Nissan's approach:

A triple-layered approach, taking measures in the areas of vehicles, individuals and society



#### **VEHICLES: DEVELOPING SAFETY TECHNOLOGIES**

With its unique Safety Shield concept, Nissan is working to develop automotive technologies from the perspective that people are at the center of the driving experience. The company focuses on solutions that help minimize potentially dangerous conditions. It also provides technologies that aim to activate vehicle systems (for example, the brakes) when a collision is unavoidable, thereby helping to reduce injuries.

#### The Safety Shield Concept

Nissan bases its efforts to help create safer automobiles on its original Safety Shield concept. This defines the conditions surrounding a vehicle in terms of six phases, from "risk has not yet appeared" through "post-crash," and guides development of technologies to help address each phase.

#### High Marks in Fiscal 2015 for Nissan Safety Technology

- In January 2015, Nissan expanded Forward Emergency Braking to more models and announced that the technology would become standard in nearly all categories sold in Japan, including electric vehicles and commercial vehicles, by the end of fiscal 2015. As of the end of the fiscal year, Forward Emergency Braking was available on nearly all vehicle categories sold in Japan and was standard on all major models.
- In Japan, the Nissan Serena received the highest Japan New Car Assessment Program (JNCAP) preventive safety performance assessment rating Advanced Safety Vehicle Plus (ASV+). In fiscal 2015, JNCAP saw the addition of rear-view camera device performance to its assessment menu.
- In the United States, the U.S. New Car Assessment Program (US-NCAP) awarded a five-star rating, its highest rating, to the 2016 Infiniti Q70 and QX60 and the 2016 Nissan Pathfinder. The Insurance Institute for Highway Safety (IIHS) recognized the 2016 Infiniti Q70 and the 2016 Nissan Altima, Maxima, Murano and Sentra with its Top Safety Pick Plus (TSP+) designation, when equipped with Forward Emergency Braking.
- In Europe, the European New Car Assessment Program (Euro NCAP) awarded a five-star top rating to the Infiniti Q30.

# Risk has not yet appeared Distance Control Assist System Navigation-enabled Intelligent Cruise Helps the driver to maintain Control with full-speed range following comfortable driving capability Adaptive Front-Lighting System (AFS) Around View Monitor Risk has appeared Predictive Forward Collision Warning Lane Departure Warning Lane Departure Prevention Blind Spot Warning Helps the driver to recover from Blind Spot Intervention dangerous conditions to safe Back-up Collision Intervention driving Crash may occur Forward Emergency Braking Anti-lock Braking System (ABS) Vehicle Dynamic Control (VDC) Crash is unavoidable Intelligent Brake Assist Front Pre-Crash Seatbelts Crash Helps minimize injuries when a Zone Body construction collision is unavoidable Post-crash

#### Aiming for Virtually "Collision-Free Cars"

Risks are present in every driving condition. Nissan supports safer driving through the development of preventive safety technologies that help detect risks in advance, providing a warning to the driver and, in emergency situations, intervening to help prevent accidents. Nissan's Safety Shield concept is a 360-degree driver assistant system designed to prevent collisions at the vehicle's rear and side, as well as in the front.

Nissan has set a goal of providing worldwide optimal mobility and committed as an automobile manufacturer to the application and popularization of its safety technologies.

# All-Around Drive-Support System in the Infiniti Q50

#### Forward Emergency Braking

When the Forward Emergency Braking system judges that deceleration is required, it helps alert the driver using both a screen display and sound, and then generates a force that pushes the accelerator pedal up and smoothly applies partial braking to assist the driver in slowing the vehicle down.

When the system judges that there is the possibility of a collision, it will automatically apply harder braking to help avoid or mitigate a collision.

#### Predictive Forward Collision Warning

This system, a world first, helps warn the driver of risks that may be obscured from the driver's view. It can sense the relative velocity and distance not only of a vehicle directly ahead but also of a vehicle traveling in front of the preceding one.



Predictive Forward Collision Warning.

#### Blind Spot Warning and Blind Spot Intervention

The Blind Spot Intervention system helps alert the driver, when attempting to change lanes, of the presence of a detected vehicle in the blind-spot area. It also helps assist the driver in returning the vehicle toward the center of the lane.



Blind Spot Warning and Blind Spot Intervention.

#### Lane Departure Warning and Lane Departure Prevention

Cameras installed in the roof console recognize the vehicle's position relative to the lane markings. When there is a possibility that the vehicle is drifting out of lane, the Lane Departure Warning system helps alert the driver with a visual warning on the display and an audible signal, while the Lane Departure Prevention system senses unintended lane drift and automatically helps assist the driver in returning to the center of the lane by generating part of the necessary movement over a short span of time.

#### Back-up Collision Intervention

The Back-up Collision Intervention system is another significant evolution in driving confidence. Radar and sonar sensors on the side and back of the vehicle help alert the driver to a potential collision with a crossing object while backing up. Should the driver continue moving in reverse, the brakes will automatically engage.



Back-up Collision Intervention, a world first.

#### Around View Monitor with Moving Object Detection

The Around View Monitor with Moving Object Detection provides a virtual 360° view of the parking environment as seen from above the vehicle and provides visual and audible warnings for moving objects within the display image.

#### From Preventive Safety to Autonomous Drive

Nissan is enhancing its preventive safety technologies to support the three basic steps in avoiding accidents: cognition, judgment and action. The company is now developing autonomous driving technologies as one next step in its safety approach. The company believes that Autonomous Drive could help to reduce traffic accidents—more than 90% of which have human error as a contributing factor—and could prove effective in contributing to the realization of a society with virtually no traffic accidents.

Autonomous Drive vehicles equipped with millimeter-wave radar, laser scanners and cameras continually monitor their surroundings in every direction. If they come close to other vehicles or other objects, artificial intelligence selects the appropriate action based on the information stored in its knowledge database. The goal is an Autonomous Drive vehicle that can correctly assess the situation, make decisions and drive safely even in complex traffic environments, such as crossroads with no traffic lights or

#### when passing parked vehicles.

In a society facing issues including aging populations and urban congestion, Autonomous Drive technologies may one day be able to help reduce traffic accidents, thus providing peace of mind to drivers and increasing opportunities for mobility for the rapidly growing number of senior citizens. Nissan believes that Autonomous Drive technologies are a major breakthrough offering new mobility value. The company is proactively developing these technologies and working to bring them to market. By the end of 2016, the goal is to release technology helping to enable safe autonomous driving in a single lane of a congested expressway; this will be followed in 2018 by Autonomous Drive technologies for multiple-lane roads, including risk-avoidance and lane-changing functions. In 2020, Nissan aims to introduce Autonomous Drive technologies allowing vehicles to navigate crossroads and intersections without driver involvement in operations.



A Nissan Autonomous Drive test vehicle.

#### INDIVIDUALS: NISSAN'S TRAFFIC SAFETY ACTIVITIES

To help create a better mobility society, it is important for as many people as possible to share an understanding of road safety, including drivers and passengers in vehicles as well as pedestrians outside them. Nissan takes part in educational activities to boost this safety awareness, including measures to improve drivers' skills and a range of other safety promotions.

#### **Educational Programs in Japan**

Traffic accidents are statistically more likely to occur during the dusk hours from 4:00 to 6:00 p.m. As part of the Hello Safety Campaign, Nissan began urging drivers to turn on their headlights earlier in the evening in the Omoiyari Light Promotion, launched in 2010.



In fiscal 2015, Nissan further enhanced activities undertaken to date. Creative Ideas for Twilight-Time Safety Salons: To bring together people involved in road safety educational activities, Nissan has held these meetings annually since 2013. This year's event—organized around the theme of "redesigning traffic safety," with the aim of considering new activities to make roads safer—included a talk show featuring a copywriter and an automotive journalist, and a workshop for all participants to share ideas.



2 Departure ceremony for early-headlight vehicles: This event took place on November 8, the final day of the 2015 Tokyo Motor Show, to raise interest in the "Day of Good Lighting" (based on a Japanese play on words), marked on November 10. At a venue next to the motor show hall, participants shouted out their feelings about urging drivers to turn on headlights earlier for safety, and a colorful procession of Omoiyari Light Promotion campaign partners' cars—led by vehicles in yellow, the campaign color—departed with their lights on.





③ Regional tour: Staff from the Omoiyari Light Promotion secretariat joined journalists on visits to event venues around Japan, where they called for greater awareness of the need to turn on headlights earlier in the evening. They also paid visits to organizations supporting the campaign, touching base with them in connection with activities aimed at promoting the practice.

As a result of these activities, corporations, nonprofit organizations and car lovers alike have gained greater understanding of the safety practice and are putting it to use more frequently. Nissan's Omoiyari Light Promotion is gradually gaining broad acceptance among the public.

#### Safety Education in the United States

Since 2002, Nissan North America (NNA) has voluntarily provided parents and caregivers with peace of mind by offering valuable tools and resources to help determine which child safety seats fit properly in Nissan and Infiniti vehicles sold in the United States, through its Snug Kids program. Snug Kids, the automotive industry's first-ever child safety seat fit initiative, provides consumers with guidance on how to achieve a secure fit when installing a rear- or forward-facing child seat or booster.

Since 2012, Nissan has sponsored ThinkFast, an interactive awareness program that educates students about the importance of safe driving practices. The program is set up like a game show with an entertaining host to keep participants engaged. More than 120 programs have been carried out at middle schools and high schools across Tennessee, Michigan, Mississippi, Texas, Arizona and California.

Nissan also sponsors a Child Passenger Safety Technician course and an event offering training in seat-check methods in the states of Tennessee, Michigan, Mississippi, Texas and Arizona, to educate adults on how to restrain children properly when traveling in vehicles.



#### Activities to Help Reduce Traffic Accidents in China

Traffic safety has become an increasingly important issue in China, which is seeing a rapid increase in the number of cars on the road.

In August 2015, Nissan (China) Investment Co., Ltd. (NCIC) co-hosted the ninth China Road Safety Forum with the China Automotive Technology & Research Center (CATARC), extending a collaboration in place since 2007. More than 200 experts and representatives from the Ministry of Transport of China, the State Administration of Work Safety, automakers, suppliers, and domestic and foreign universities and institutes participated in the forum.

To convey safe driving concepts to customers and help them to develop safe driving habits, Dongfeng Nissan Passenger Vehicle Company (DFL-PV) held the "Safe Driving Experience Camp 360°," a safety-themed event. The company is also engaged in various activities, including lectures and skills training for drivers and the general public, as well as training in first-aid techniques, so that people will be ready if needed. These events have been held in more than 300 cities throughout China, with more than 1.6 million participants learning the importance of safe driving.

#### Nissan Safety Driving Forum in Emerging Markets

Nissan carries out its "Nissan Safety Driving Forum" in emerging markets as part of efforts to promote safer mobility. The aim is to enhance road safety awareness among the general driving population.

Previously held in China and India, the forum was also launched in Russia in 2014. During 2015, events were held in four cities, including Moscow and Saint Petersburg, where participants learned about the importance of road safety through driving tests on simulators and hands-on experience of safety technologies.



#### Partnership with the FIA for Traffic Safety

In 2014, Nissan and the Federation Internationale de l'Automobile (FIA) formed a partnership to make world roads safer through the "FIA Action for Road Safety" campaign. Nissan is an official supporter of the FIA's innovative awareness-raising campaign, launched in 2011 in support of the United Nations Decade of Action for Road Safety.

As part of this partnership, Nissan supports and promotes awareness campaigns worldwide—in particular, "Action for Road Safety's Golden Rules for Safer Motoring" ■ —with the aim of helping to reduce the number of deaths and injuries from many traffic accidents that occur each year.

Through the Nissan Safety Driving Forum, carried out again in Russia in 2015, the company worked to educate drivers about the Golden Rules with driving simulators and other technologies. At the NISMO Festival—a fan appreciation event hosted by Nissan Motorsports International Co., Ltd., its 100%-owned rally and racing company, Nissan promoted safety activities by placing campaign logo decals on all vehicles on display. The company also stressed the importance of safe driving by holding quiz-style educational events and having race drivers pledge to follow the Golden Rules before the fans.



Pledging to follow the Golden Rules for Safer Motoring at the NISMO Festival.



#### SOCIETY: WORKING TOGETHER WITH SOCIETY

Nissan believes it is possible to help create an even safer mobility society by using information from the traffic environment surrounding vehicles on the road. Together with a wide range of governmental agencies, universities and companies, it is participating in various projects intended to promote the eventual achievement of a safer, more pleasant mobility society utilizing Intelligent Transport Systems (ITS).

#### Helping Reduce Accidents and Congestion with ITS

In 2006, Nissan launched the ITS Project in Japan's Kanagawa Prefecture. This project seeks to use Intelligent Transport Systems to create integrated networks of people, roads and vehicles, thereby helping to reduce traffic accidents and ease road congestion. The ITS Project gathers and uses information on nearby vehicles and the traffic environment to help reduce accidents involving other parties that can be difficult for a driver to see and react to.

Nissan is building on the results of the ITS Project with development of the "Driving Safety Support System" (DSSS). This will be an ongoing project promoted by Japan's National Police Agency and the UTMS Society of Japan, an organization operating under its aegis.

The DSSS uses the latest ITS technologies, such as optical-beacon communication tools, to connect vehicles and the road network, with the aim of reducing traffic accidents. At intersections with reduced visibility, roadside infrastructure communicates with vehicles to deliver information to drivers via onboard navigation systems, warning of potential dangers such as crossing collisions and helping ensure they notice stop signs, signals and vehicles stopped at lights.

#### ▶ website

 Click here for more information on the Golden Rules for Safer Motoring.

# Helping Reduce Wrong-Way Accidents

Recently, Japan has seen a number of incidents involving vehicles traveling in the wrong direction on expressways. Working together with West Nippon Expressway Company Ltd. (NEXCO-West), Nissan has developed a navigation program that uses GPS to notify drivers of vehicles driving the wrong way on an expressway. The system detects wrong-way vehicles based on GPS coordinates, maps, traveling speeds and other data. The driver of a vehicle going the wrong way receives audible and visual warnings. The Nissan Fuga Hybrid released in October 2010 was the world's first application of this system, which is now available on a wide range of models as an option.

# PHILANTHROPY

The world faces many issues, ranging from climate change and energy security to overpopulation and poverty. In September 2015, the United Nations Sustainable Development Summit was held at the UN Headquarters with participation of more than 150 countries. The resolution adopted was "Transforming Our World: the 2030 Agenda for Sustainable Development," including goals forming "a plan of action for people, planet and prosperity." Cooperation on a global scale is required to build a sustainable society, and the role that companies are expected to play is growing in importance.

When a company provides a range of resources to communities, supporting their development and proactively tackling issues, it is, in part, fulfilling its social responsibility as a good corporate citizen. Such actions also benefit the company's own operations, fostering a better business environment and creating new markets that can grow sustainably.

Nissan works with a variety of stakeholders, including governmental bodies as well as nonprofit and nongovernmental organizations, to maximize the success of such initiatives. In line with Nissan's corporate philanthropic policies, regional offices and affiliates work on initiatives that address issues relevant to their operations and the communities in which they operate.

#### NISSAN'S ACTIONS

NISSAN'S THREE AREAS OF FOCUS

Global social contributions (including donations and monetary contributions):



# PHILANTHROPY

# SCORECARD

# FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision	
Environment	Increase future generations'understanding of environmental issues through education programs	Ongoing program implementation and regional expansion	<ul> <li>Continued education program in Japan</li> <li>Conducted education program in China and Europe</li> </ul>	<ul> <li>Expanded area and frequency of educational program in Japan</li> <li>Conducted environmental activities as part of independent education programs in China and the U.K.</li> <li>Held pilot education program in Spain</li> </ul>	~~	<ul> <li>Continual improvement of program in Japan</li> <li>Work together with different regions to steadily expand countries and areas where program is held</li> </ul>	<ul> <li>Contribute to development of both business and society as a global corporation</li> <li>Centered on "environment," "education" and "humanitarian support," conduct activities that make maximum use of Nissan's strengths and resources</li> <li>Balance global perspectives with the most appropriate activities for each region</li> </ul>	
Education	With focus on investment in future generations, implement education programs centered on children and young people		Expanded Nissan Monozukuri Caravan to China and the U.K.     Introduced new education program in the U.K. and Indonesia	Conducted independent education programs in China and the U.K.	~~	<ul> <li>Work together with different regions to steadily expand countries and areas where program is held</li> <li>Research and implement initiatives for tackling social issues in different countries</li> </ul>		
Humanitarian support	Provide rapid support for areas affected by natural disasters	In-depth understanding of local needs and provision of timely support	<ul> <li>Supported those affected by earthquake in Yunnan, torrential rain in Hiroshima and Ebola in Liberia</li> <li>Continued supporting areas affected by the Great East Japan Earthquake (voluntary activities by employees, the Nissan President Fund, vehicle donation)</li> </ul>	<ul> <li>Shared initial support process with all regions</li> <li>Supported those affected by earthquake in Nepal</li> <li>Supported those affected by flooding caused by tornadoes and heavy rain in the U.S.</li> <li>Supported those affected by heavy rain in northern Kanto and Tohoku, Japan</li> <li>Supported those affected by heavy rain and flooding in India</li> </ul>	~~	<ul> <li>Further increase decision-making and response speed</li> <li>Strengthen cooperation between regions and functions</li> <li>Draw up mid-term philanthropy action plan based on sustainable development goals (SDGs)</li> </ul>		
	Conduct activities in partnership with Habitat for Humanity	Continued cooperation in projects and geographic expansion	<ul> <li>Supported projects in Myanmar, Vietnam, Thailand, Indonesia and Japan</li> </ul>	<ul> <li>Supported projects in North America, Myanmar, Vietnam, India and Indonesia</li> <li>Celebrated 10th anniversary of partnership in North America</li> </ul>	~~			



#### **NISSAN'S APPROACH TO PHILANTHROPY**

Nissan's social contribution activities focus mainly on the areas of environment, education and humanitarian support. The company not only provides financial assistance but also pursues activities that are "distinctly Nissan," making full use of its automotive heritage, expertise, products and facilities.

Nissan emphasizes communicating and working with specialized nonprofit and nongovernmental organizations that have great expertise in their fields to ensure that its social contributions are effective.

Nissan's local companies support employee involvement in social contribution activities.

#### Contributions to Communities Where Nissan Conducts Business



#### **COMPANY ORGANIZATION FOR PHILANTHROPY**

The CSR Department at Nissan's Global Headquarters in Japan is responsible for developing Nissan's corporate philanthropic policies. These are discussed and approved by the Executive Committee **a** and shared throughout Nissan's global operations. The corporate policy provides the basis on which initiatives are implemented across the company worldwide.

#### ► page\_09

 Click here for more information on the Executive Committee.

#### ENVIRONMENT

Nissan's environmental philosophy is "a Symbiosis of People, Vehicles and Nature." Nissan actively engages in efforts to reduce the environmental burden on the planet and prioritizes the environment in its philanthropic activities. Central to its approach are educational programs that cultivate a deeper understanding of environmental issues and the promotion of research toward reaching a low-carbon society.

#### School Visit Programs (Japan, U.K. and China)

Since 2007, Nissan has put its manufacturing know-how to work by conducting school visit programs. The programs target older elementary school students and are carried out by Nissan employees.

One educational program is the Nissan Waku-Waku Eco School, which helps participants to deepen their understanding of global environmental issues. Participants also learn about Nissan's environmental efforts and experience the latest in environmental technology, including car kit experiments and test rides in the Nissan LEAF electric vehicle. Classes are developed in cooperation with the NPO Weather Caster Network (WCN), whose staff members support delivery of the lessons.

This program has been so well received that Nissan has increased the number of Eco School classes in Japan. In fiscal 2015, about 9,000 pupils from 75 schools, mainly in Kanagawa Prefecture, attended the program (including visitors to program exhibitions). Since the launch of the Nissan Waku-Waku Eco School, a total of 41,000 children have participated as of the end of March 2016. Employees from many divisions have stepped forward to teach. In fiscal 2015, a total of 373 employees volunteered to support the classes.

#### ▶ website

 Click here for more information on the Nissan Waku-Waku Eco School. Classes have also begun outside Japan. In fiscal 2013, Nissan Motor Manufacturing (UK) Ltd. (NMUK) launched a successful pilot activity with children from local primary schools, and Nissan (China) Investment Co., Ltd. (NCIC) has held classes in China.

#### Partnership with WWF Japan

As part of its environmental activities, Nissan has entered a partnership with World Wide Fund for Nature (WWF) Japan, the Japanese branch of the international environmental protection body. In fiscal 2015, it provided one e-NV200 each to WWF Japan partners Tokushima Regional Energy and the Shikoku Institute of Natural History without cost for a three-year period. The organizations will enjoy such EV benefits as electricity supply during outdoor surveys and transportation powered by renewable energy. Nissan also supported the WWF Japan's environmental awareness event, Earth Hour, held in Yokohama in March 2016.

## EDUCATION

Nissan believes that supporting young people is an investment in the future. To help realize a meritocratic society in which a better future is possible for anyone, the company has established several educational initiatives that utilize its knowledge and technology base, in addition to providing elementary school education opportunities in emerging countries.

#### Youth Literacy Efforts (Japan, Portugal and U.S.)

Nissan has organized the Nissan Children's Storybook and Picture Book Grand Prix **1** each year since 1984. Through March 2016, more than 210,000 copies of published winning works have been donated to public libraries across Japan and kindergarten classrooms near Nissan offices.

In 2012, Nissan's office in Portugal, Nissan Iberia, S.A. (NIBSA), established a similar program in which the company cooperates with local governments to invite children from 950 junior high schools to submit entries. The winning 10 works are compiled into a book and 15,000 copies are presented to Portuguese libraries and schools.

In Tennessee, the site of the company's North American headquarters, Nissan has supported for more than 10 years the Governor's Books from Birth Foundation's Dolly Parton Imagination Library, an initiative that aims to foster a love of reading among preschool children. In February 2016, the company donated 42,000 age-appropriate books for children up to age 5 to four Tennessee counties.



An event during Imagination Library Week.

# Outreach to Pupils to Talk About *Monozukuri* (Japan, U.K., China, U.S., South Africa, Indonesia and Other Countries)

Through engaging and fun activities, Nissan works to instill in younger generations the importance of *monozukuri*, Japan's tradition of careful craftsmanship.

In Japan, the message of *monozukuri* is shared through school visit programs, the Nissan Monozukuri Caravan and the Nissan Design Waku-Waku Studio, which take Nissan employees to elementary schools. Some 20,000 children participate in the programs every year. The Nissan Monozukuri Caravan also operates in the United Kingdom, where the Sunderland Plant welcomes groups from local elementary schools. In China, Nissan (China) Investment Co., Ltd. (NCIC) and Dongfeng Nissan Passenger Vehicle Company (DFL-PV) hold classes.

Other programs involving students, such as "See Inside Manufacturing," in which 2,500 children participated in tours of Nissan Motor Manufacturing (UK) (NMUK) facilities, enable Nissan to engage with the next generation of automotive professionals. Through the Nissan Skills Foundation, established in October 2014 with the goal of inspiring the next generation of U.K. design, engineering and manufacturing talent, the company is conducting a range of programs including workshops, competitions, practical activities and plant tours. One of these is the "Girls in Monozukuri,

▶ website

Click here for more information on Nissan's support for

the Dolly Parton Imagination Library.

#### ▶ website

Click here for more information on the Nissan Monozukuri Caravan and the Nissan Design Waku-Waku Studio.

#### ▶ website

Click here for more information on the Nissan Skills Foundation.

▶ website

✤ Click here for more information on the Nissan Children's Storybook and Picture Book Grand Prix. Manufacturing and Engineering" (GIMME) event, focused on female career development, which engaged 7,200 female students aged 14 to 19 in fiscal 2015.

In addition, the company donates vehicles and engines to universities and vocational schools to be used for instructional purposes in many countries, including the United States, South Africa and Indonesia. Access to real-world vehicles helps students build their skills and practical knowledge.



The "See Inside Manufacturing" program (U.K.).

# Education Support for Children in Need (China and South Africa)

Since 2010, Nissan (China) Investment Co., Ltd. (NCIC) has operated the "Nissan Caring for Migrant Children" program in China. To further enhance this program, in 2013 NCIC launched the "Dream Classroom" program, which helps elementary and middle school pupils in economically disadvantaged districts. The program has gradually expanded the area of operation and scope of classes to include such topics as the environment, *monozukur*, design, and the basics of automotive engineering. Other educational endeavors include a Dongfeng Infiniti Motor Co., Ltd. (DFI) program supporting children with autism, as well as educational programs prepared by Dongfeng Nissan Passenger Vehicle Company (DFL-PV).

In fiscal 2015, Nissan South Africa (NSA) once again provided the Mobile Eye Clinic, screening 8,000 schoolchildren, providing 80 pairs of glasses and introducing medical facilities for those children who need treatment. This child eye health project, which has been operating for six years, helps children from disadvantaged backgrounds gain access to eyecare, enhancing their ability to see and learn.



Interior of the Mobile Eye Clinic (South Africa)

# Developing the Next Generation of Scientists and Engineers (U.S.)

In the United States, Nissan is making direct investments in the workforce of tomorrow through support of science, technology, engineering and mathematics (STEM) initiatives and technical education training programs. Nissan provides financial support to develop STEM programs for students in elementary, middle and high schools, and to support STEM programs in colleges.

In Tennessee, where Nissan has two major assembly plants, Nissan and its employees support the Music City BEST (Boosting Engineering Science and Technology) Robotics Competition in Nashville. Student teams design and build working robots from standard kits of simple building materials and then compete to perform specific tasks in three minutes. In fiscal 2015, a total of 459 students in 16 teams took part, and 26 Nissan employees volunteered as team mentors or competition judges. In this project-based STEM program, the students solve real-world science and engineering problems, helping them develop technological literacy skills that may shape their long-term education and career direction.

Nissan North America (NNA) also donated a Titan XD pickup to a nonprofit organization in Nashville, Tennessee. Urban Green Lab gives children the opportunity to think and learn about environmentally friendly, sustainable lifestyles, connecting these with their own experiences. The organization plans to hold classes throughout the year, visiting schools in the area and using the donated vehicle to tow a mobile classroom.



The Titan XD towing a mobile classroom.

#### Nissan Global Foundation (Japan)

The Nissan Global Foundation pursues the vision of helping to achieve a society whose members can look to the future with hope while creating opportunities to foster human resources. Working toward this goal, the Foundation provides financial support for training programs.

A key part of this outreach is a concerted effort to enhance science education. Support recipients include elementary and junior high schools, as well as research groups that are implementing educational programs to foster scientific thinking skills among children, and training programs to improve the science teaching skills of instructors. In fiscal 2013, the Foundation launched the Science Education Awards in Japan. The Foundation aims to spark fresh interest in science education by presenting awards to schools with the best performance in the course of the two-year program, whose activities are expected to have beneficial ripple effects on the broader society.

Since fiscal 2014, the Foundation has also run the Exciting Science Navigation program with the aim of fostering a high level of scientific thinking in as many children as possible. The hands-on program for elementary and junior high school teachers combines tours of innovative research facilities, opportunities for direct communication with researchers and workshops that enable teachers' discoveries to be practically applied in the classroom. Program activities take place at the Institute of Physical and Chemical Research (Riken), the University of Tokyo's Institute of Industrial Science and the Waseda University Center for Advanced Biomedical Sciences.

Nissan Motor Co., Ltd., Waseda Business School, the Wharton School at the University of Pennsylvania in the United States and the International Institute for Management Development (IMD) in Switzerland also worked together to establish seminars for nurturing resilient leadership. Speakers from Japan, the United States and Europe gave lectures based on theoretical analysis from a business administration perspective. The goal was to cultivate understanding of true leadership that encompasses theory and practice, along with the ability to put it into use. Seminars incorporated case method material based on Nissan management reforms to achieve sustainable growth, practical reforms at U.S. and European corporations and direct dialogues with Nissan CEO Carlos Ghosn. As of March 2016, the seminars had been conducted three times with the participation of 95 executives and managers from mid-size and major companies in the fields of finance, trade, logistics, transportation, pharmaceuticals, chemicals, electricity, machinery and information.

Click here for more information on the Nissan Global Foundation.

# ➡ website

Click here for more information on the Nissan Institute.

#### Nissan Institute of Japanese Studies, Oxford (U.K.)

Founded at the University of Oxford, the Nissan Institute of Japanese Studies is a well-known European center for research on modern Japan that contributes to the promotion of mutual understanding between Japan and Europe.

#### HUMANITARIAN SUPPORT

Nissan has provided assistance around the world to people who have been affected by large-scale natural disasters. The company's humanitarian efforts include initiatives in North America and Asia through a global partnership with Habitat for Humanity.

#### Partnership with Habitat for Humanity

Nissan started collaborating with Habitat for Humanity in the wake of Hurricane Katrina and Hurricane Rita, which struck the American Gulf Coast in 2005. Habitat for Humanity is an international aid organization that gives people hope by building homes and has a vision of "a world where everyone has a decent place to live." The nonprofit tackles poverty and the associated problems of low-quality housing in developing countries by working to construct homes and support self-reliance in 80 countries. The year 2015 marked the tenth anniversary of Nissan's partnership with Habitat for Humanity in North America.

In the past 10 years, Nissan has served with 570 homeowner families, donated 130 vehicles to Habitat affiliates and logged more than 70,000 work hours by employee volunteers. In fiscal 2015, the company continued its active involvement, including a construction project assisted by former winners of the Heisman Memorial Trophy, the highest honor in U.S. college football, alongside many Nissan employees. Dealerships also joined forces to run related campaigns.

Nissan expanded the partnership in 2012, broadening operations

beyond North America to various Asian countries, with Nissan's regional

companies and their employees contributing their time by volunteering for

construction and other related activities. In fiscal 2015, 100 employees in

the Philippines took part in three housing construction and repair projects.

Activities were also conducted in Myanmar, Vietnam, India and Indonesia.

#### ▶ website

Click here for more information on Nissan's partnership with Habitat for Humanity.



Employees working hard to build homes in a typhoonaffected area (Philippines).

# World Food Programme Partnership (Europe, Africa, Middle East and India)

#### A Partnership Focused on Safety and the Environment

In October 2015, Nissan Europe announced a year-long collaboration with the world's largest food assistance body, the United Nations World Food Programme (WFP). With a fleet of 3,200 vehicles and 88% of its 14,600 employees active in the field across 82 countries, safety and environmental impacts are critical issues in its daily operation. The partnership represents an annual investment of €180,000, which touches WFP employees in terms of road safety and significantly enhances the organization's supply chain footprint and sustainable procurement initiatives. Nissan also leverages its environmental leadership and mobility expertise to contribute toward more efficient, greener and safer means of moving humanitarian supplies and people.

#### Participation in World Food Day

On October 16, 2015, as part of its partnership with the WFP, Nissan took part in World Food Day in Europe, India and South Africa. Employees brought food to work and participated in photo contests to raise awareness. In Europe, more than 1.3 tons of food were collected, and a matching financial donation was given to local organizations. The company also donated €8,500 to the WFP's school meal program, which equals a contribution of 33,000 school meals worldwide.



Employees bring food to donate to local nonprofit organizations.

#### Addressing the 3/11 Disaster (Japan)

#### Employee Volunteer Activities in Fukushima Prefecture (Japan)

In response to the Great East Japan Earthquake of March 11, 2011, Nissan has provided various kinds of support, from immediately after the disaster through reconstruction activities, seeing robust employee participation. In fiscal 2015, Nissan employees helped with reconstruction in Hirono in the district of Futaba, Fukushima Prefecture. Together with the Iwaki OtentoSun Enterprise Cooperative, based in Iwaki, Fukushima, a total of 155 employees from several Nissan facilities took part in four volunteer tours. They worked with local residents to construct park facilities, assemble solar panels by hand and install solar-powered LED street lighting. In March 2016, employees marked the fifth anniversary of the disaster by planting trees to celebrate the completion of a green coastal area to mitigate the effects of tsunami.



Planting trees in the completed green coastal area in Hirono, Fukushima Prefecture.

#### Bringing Smiles to Children in Tohoku (Japan)

The Nissan President Fund, launched by CEO Carlos Ghosn in 2011, fosters programs to support children in areas affected by the Great East Japan Earthquake. For example, in the Asobi (Play) Plus One program, NPOs with a range of specialties provide unique programs at local children's centers in lwate, Miyagi and Fukushima Prefectures. Another initiative, the Odekake (Take a Trip) program, provides students with hands-on learning experiences and fun excursions during school breaks.

▶ website

Click here for more information on the Nissan President Fund.

#### Addressing Other Natural Disasters

#### Earthquake Relief Activities (Nepal)

On April 25, 2015, a powerful earthquake hit Nepal. Nissan made a donation of  $\pm 10$  million through the World Food Programme (WFP) to support people affected by the disaster.

#### Flood Relief Activities in Texas and Oklahoma (U.S.)

In May 2015, tornadoes and heavy rains caused serious flooding in Texas and Oklahoma. Nissan North America (NNA) donated \$50,000 to assist the American Red Cross in helping those affected by the disaster.

#### Relief Activities in Northern Kanto and Tohoku (Japan)

Nissan made a contribution of  $\neq$ 10 million to help those affected by torrential rain in the prefectures of Miyagi, Ibaraki and Tochigi in mid-September 2015.

#### Flood Relief Activities (India)

In December 2015, torrential rains caused serious flooding in the Indian state of Tamil Nadu. Nissan Motors India Pvt. Ltd. (NMIPL) donated blankets and other emergency aid supplies and encouraged its employees to make donations.

#### NISSAN AS A COMMUNITY MEMBER

Nissan aspires to be a good corporate citizen, acting as a valuable member of, and active contributor to, local communities wherever it does business. The company provides support to communities in ways that reflect local needs, such as assisting with community events, hosting fun and educational activities and sponsoring neighborhood cleanups and various other beautification activities near Nissan facilities. Many employees actively participate as volunteers.

#### Sponsorship of Disability Sports (Japan)

In December 2015, Nissan sponsored the Nissan Cup Oppama Championship 2015—the 16th National Wheelchair Marathon in Yokosuka, Kanagawa Prefecture—co-hosting the event with other local organizations. The contest has been held since 2000 with the aim of increasing the profile of disability sports, improving the level of competitors, engaging people in the area and building caring communities. During the road race from Grandrive, Nissan's facility for test driving at the Oppama Plant, to Oppama Station, around 1,200 volunteers, including company employees and local community residents, were on hand to support the event.

The Nissan Technical Center (NTC) and Nissan Advanced Technology Center (NATC), in the city of Atsugi, Kanagawa Prefecture, contribute to the local community by promoting "Nice Wave" activities, which include neighborhood cleanups and cooperation with local events. Since 2012, NTC has also sponsored the Nissan Fureai Road Race. This contest for both visually impaired and sighted competitors is held on the NTC grounds, creating a safe environment in which participants are able to compete. In the fourth competition, held in March 2016, 550 runners took part.

#### Frameworks for Supporting Communities (U.S.)

In the United States, Nissan supports communities through the Nissan Foundation, which funds educational programs that encourage people to value the cultural diversity that exists within American society. The Nissan Foundation, established in 1992, has contributed over \$8 million to more than 100 nonprofit organizations across the country.

# QUALITY

The rating of a car and the value of an auto manufacturer's brand are dependent on the customer's appraisal of quality. A company can reinforce its brand by continually providing the value customers expect, but failing to meet expectations even once makes it harder to maintain a platform for providing new value to those customers.

Mobility needs are rising in the face of structural changes in the global economy, engendered by increased urbanization in countries around the world. Nissan is expanding production to fulfill its mission of offering people worldwide the rich benefits of mobility. At the same time, it believes that automakers have an important responsibility to constantly offer customers the kind of quality with which they will be satisfied.

Nissan aims to be a company trusted by its customers by addressing quality as a companywide issue. The company seeks to provide top-level quality to customers at every stage, from the planning of new vehicles through development, manufacturing, distribution and sales to after-sales service.

#### NISSAN'S ACTIONS

Customer feedback received by Nissan's customer call center (Japan):

180,000 customer inquiries

# QUALITY

# SCORECARD

### FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	rities Nissan Objectives Indic		rogress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
	Under quality improvement goals of Nissan Power 88, make Infiniti a leading luxury brand and make Nissan a leading global automotive brand by FY2016	high scores in	North America: Consumer Reports and J.D. Power IQS/VDS	<ul> <li>U.S.: 7 models were recommended in Consumer Reports</li> <li>U.S.: Juke, Infiniti QX80 and Infiniti QX60 took the top spots, while Murano, Z, Maxima, Frontier and Infiniti QX70 ranked in the top 3 in the J.D. Power IQS segment</li> </ul>	U.S.: 4 models (Versa, Rogue, Murano and Infiniti Q70) were recommended in <i>Consumer Reports</i> U.S.: Sentra, Quest, Infiniti QX70 and Infiniti QX80 ranked 1st; Frontier ranked 2nd; Z, Infiniti QX50 and Infiniti Q70 ranked 3rd in the J.D. Power IQS segment	V	activities for new and existing models	Strive for the top level in quality from the customer's perspective
			In Europe: U.K.: What Car? Germany: ADAC Italy: Quattroruote	U.K.: Note earned 4 stars while Qashqai and Juke earned 3 stars in <i>What Car?</i>	-	-		
Product quality			In other regions: China: J.D. Power IQS/ VDS South Africa: Ipsos PSI Brazil: <i>Quatro Rodas</i> India: J.D. Power IQS	<ul> <li>South Africa: NP200 and Micra ranked 1st, and Navara ranked 2nd in each Ipsos PSI segment</li> <li>India: Micra ranked 4th and Terrano 3rd in each segment in J.D. Power IQS</li> <li>China: Sylphy ranked 2nd in its segment in J.D. Power IQS</li> </ul>	<ul> <li>South Africa: Almera, Sentra, NP200, Hardbody and Navara ranked 1st; Micra ranked 2nd; Juke and X-Trail ranked 3rd in each Ipsos PSI segment</li> <li>China: X-Trail ranked 2nd in its segment in J.D. Power IQS</li> <li>Thailand: Almera ranked 2nd in its segment in J.D. Power IQS</li> <li>Indonesia: Grand Livina and March ranked 3rd in each segment in J.D. Power IQS</li> <li>Malaysia: Grand Livina and Almera ranked 2nd in each segment in J.D. Power IQS</li> </ul>	v		
			Japan: J.D. Power IQS	Japan: DAYZ ROOX and Nissan LEAF ranked 2nd in each segment in J.D. Power IOS	Japan: Nissan LEAF and Moco ranked     1st in each segment in J.D. Power IQS	V		
Sales and service quality	Achieve Top-Level Quality in all focus markets by FY2016		North America & Asia: J.D. Power SSI/CSI Europe: GfK SSI and TNS CSI Mexico & Brazil: Ipsos SSI/CSI	Maintained Top-Level Quality in Japan, China and Mexico; implemented kaizen actions in ASEAN and India–where levels were below industry average–and other major markets with the goal of attaining Top-Level Quality	Maintained Top-Level Quality in Japan, China and Mexico; went from below industry average in sales field to Top-Level Quality in India; improved to industry average level in ASEAN	V	Systemize and standardize best practices in countries that have already attained Top-Level Quality to raise quality levels in other countries; grasp customer feedback earlier and accelerate initiatives leading to improvement	Maintain Top-Level Quality for sales and service

### NISSAN'S APPROACH TO QUALITY

There are many aspects to quality. Nissan seeks to provide high quality at all stages of the customer experience. To achieve this, Nissan pursues effective companywide cooperation at the cross-functional and cross-regional levels.

In 2011, Nissan announced its "Enhancing Quality" program, spelling out clear quality-related goals and methods that are to be achieved by fiscal 2016. Nissan aims to be recognized by customers as a brand with top-level quality. The company is working on both product quality and sales and service quality with the aim of reaching the top level in every region globally.

The product quality of a vehicle is fundamental for a customer to use it safely and comfortably over the long term. Nissan aims to provide a high level of quality that meets customer expectations during the entire lifecycle of a vehicle. This includes the perceived quality when a customer opens the vehicle door in the showroom, sits in the seat and takes a test drive; the initial quality in the first year after purchase; and the durability that remains even after many years of use.

Nissan also conducts initiatives to increase customer satisfaction (CS) in the area of sales and service quality. The company aims to exceed expectations at every customer contact point, from visiting dealerships, purchasing a car and receiving maintenance to when the customer decides to replace the car.

Nissan listens to customers and reflects their feedback in every process throughout the company in its pursuit of customer satisfaction.

#### COMPANY ORGANIZATION FOR QUALITY

Nissan has established an executive post responsible for leading efforts to achieve the goals of the "Enhancing Quality" program by fiscal 2016, the target year. This has raised the focus on quality in addition to boosting employee awareness, encouraging companywide endeavors to meet targets.

The company also created forums to discuss specific issues under the leadership of this executive, including the Global Quality Management Committee and the Sales & Service and Monozukuri Collaboration Committee. These teams operate cross-regionally and cross-functionally.

#### LISTENING TO CUSTOMER FEEDBACK

Quality is a means of displaying how successfully Nissan interacts with its customers. The aim is to provide the value that customers expect and to respond rapidly if they are not satisfied. The company listens to all feedback, reflecting it in measures to improve quality at every stage—from vehicle design and development to after-sales service.

#### **Rapid Response to Customer Feedback**

Nissan responds to customer comments and questions worldwide through a range of methods, such as points of contact at dealers, call centers and surveys.

Nissan's customer call center in Japan annually receives approximately 180,000 cases of comments and questions from customers. All catalogs, instruction manuals and similar materials published in the last 50 years have been digitized for easy searching, letting operators address customer concerns as quickly as possible. Operators also have access to a database of frequently asked questions and their answers, organized by vehicle models, keywords and categories.

Employees who buy Nissan vehicles are also customers and important stakeholders. The "Quality Listening Box" on the company intranet lets employees actively contribute information to raise the quality of products and services.

#### Sharing Customer Feedback

Opinions and comments received by the customer call center in Japan are anonymized and shared companywide on the intranet, where employees can access and view the database at any time. At the same time, the information is promptly sent by email to executives and senior managers.

A space has also been set aside within the company for all employees to freely view customer feedback whenever they like, so they can reflect customer perspectives in the pursuit of their duties. In addition to details on comments and inquiries dealt with by the customer call center, this space features opinions, wishes and encouraging words of praise received directly from customers by CAs, or car-life advisors, at dealers.

# ➡ website

 Click here for more information on "Enhancing Quality."

#### **Reflecting Customer Feedback in Products and Services**

Nissan has implemented a system for reflecting customer feedback in its products and services. The feedback is put to work through reliable information sharing among all functions, including product planning, R&D, manufacturing and sales.

Vehicle quality involves more than just mechanical faults: It includes all factors that may affect customer satisfaction (CS). Nissan sees these factors as issues requiring action and strives to improve quality in all these areas.

The value that customers expect from vehicles varies according to their personal tastes and unique expectations, and can be affected by such market factors as the level of car ownership or the climate in a certain market. Although Nissan uses a set of basic specifications for global design, it also makes adjustments to meet regional needs. The Chief Quality Engineer (CQE) performs this role, working to enhance CS and reduce defects by participating in the vehicle manufacturing process from the product planning stage. Nissan gleans customer perspectives from market information and employee monitors. Priorities are set from the planning and development stages to consider responses that will be reflected in products and services.

#### **Developing a CS Mindset**

To improve quality across the company, all employees must consider the customer's perspective and keep CS in mind as they work. For this reason, Nissan implements regular CS training.

The training covers quality policy in the Nissan Group and quality improvement measures, incorporating actual feedback from customers in group discussions. Nissan lets employees discuss what the company can do for customers and what action is necessary in the current situation, thus fostering a quality-improvement mindset rooted in CS among individual employees. The training is currently offered in Japan, the United States, Europe, China and Asia and Oceania, with further expansion ongoing.

The company has held the Nissan Quality Forums for executives, employees and suppliers since 2003. These forums use information displays, video presentations and actual vehicles and parts to showcase Nissan's latest status on quality, customer feedback and activities aimed at meeting targets. Almost 10,000 participants reaffirm the importance of quality at these annual forums, which are organized cross-functionally by the Total Customer Satisfaction Function (TCSX) <sup>•</sup> and the R&D, manufacturing, sales/service and other divisions in order to raise all employees' awareness of CS and quality-improvement issues. The forums take place in Japan, the United States, Mexico, the United Kingdom, Russia, China, Thailand, Indonesia and other locations around the world.

#### Securing Future Quality Through Training

Mechanics play a prominent part in connecting Nissan with customers. There are five Nissan Automobile Technical Colleges in Japan—in Yokohama, Kyoto, and the prefectures of Tochigi, Aichi and Ehime—which train budding mechanics. The executive responsible for quality visits them to teach the students about Nissan's philosophy and various initiatives related to quality and to pass down to them the inherent qualities, or "DNA," that Nissan hopes to see in its employees.

#### **PRODUCT QUALITY**

Product quality is a basic feature in allowing customers to use a vehicle safely and comfortably over the long term. For Nissan, a leading automaker with a strong level of *monozukuri*, Japan's tradition of careful craftsmanship, the product quality of its vehicles is the foundation for its sustainability as a company. Nissan considers quality from the customer's perspective at all times and responds quickly in case a defect occurs, making efforts to prevent a recurrence so as not to inconvenience the customer. The company ascertains customer dissatisfaction and addresses it through all possible means. Product quality is being improved to increase customers' satisfaction.

Within product quality, Nissan includes perceived quality, initial quality and durability. Quality improvement efforts target the entire lifecycle of a vehicle, from planning and design to R&D, manufacturing, distribution, sales and after-sales service. Nissan monitors the results of third-party quality surveys for use as internal indices and makes improvements throughout the PDCA (plan, do, check, act) cycle.

# ▶ page\_63

 Click here for more information on product quality survey results in the CSR scorecard.

#### Product Quality Assessments by External Bodies

Nissan uses the results of third-party quality surveys a sinternal indices, applying them in improving the manufacturing of its vehicles. The company has set high-level indices and is striving to achieve them in each of the regions in which it operates.

#### Perceived Quality

Perceived quality is the quality that customers feel when seeing, touching and operating a vehicle. For example, when customers come to the showroom they open the vehicle doors, sit in the seats and check things like the texture of interior fittings.

The feeling of quality is a subjective matter, and fixing quantified criteria requires very careful investigation. To define criteria for quality evaluation from the customer's point of view, Nissan evaluates cars using the opinions of numerous employee product monitors and specialists with in-house training. The company also surveys customers who have purchased or are considering purchasing a Nissan car.

The company is now working to gain a better understanding of customers' perceptions in different markets around the world while reflecting those perceptions in new vehicles from the development stage. Nissan scientifically measures and analyzes customer perceptions to gain a quantitative grasp of what makes people feel good. This information shapes the company's specific design targets.

#### Improving Initial Quality

Initial quality issues involve defects that occur within a year of a new car purchase. Nissan has endeavored to reduce defects by establishing internal indices showing the frequency of defect claims within 3 and 12 months following sales.

To ensure that customers are satisfied, Nissan maintains a firm commitment to enhancing quality at the manufacturing stage for every single vehicle that comes off the line. Toward this end, Nissan has implemented the Alliance Production Way as its fundamental approach in this area. The Chief Vehicle Engineer, responsible for development, and the CQE meet to share information from the market in order to promptly respond to customers' wishes and potential satisfaction concerns. The company confirms quality improvements for each process and considers the necessary risk-reduction measures by visualizing potential risks at the planning stage. As a result of these activities, in Japan the Nissan LEAF was selected as the best vehicle in the midsize segment of the J.D. Power Initial Quality Study, a benchmark among automakers for measuring new vehicle quality.

By advancing all these processes with transparent criteria, Nissan can ensure the high quality of new models from the outset.

#### Enhancing Durability

Product life is affected by durability issues that can arise from long vehicle use: molded resin parts changing color or deforming, surface materials becoming abraded, chrome stripping away and material fatigue producing odd noises in the vehicle. Nissan consistently obtains data for the two to four years after the initial sale during the warranty period and conducts quality checks on recovered vehicles and parts actually used by customers for the early identification of defects. Analysis of such data contributes to the development of technologies that are more resistant to durability issues.

#### Working with Suppliers to Improve Product Quality

As Nissan's production network expands worldwide, there is greater risk of problems arising related to quality and supply of parts in the areas of operation. The company works with suppliers to improve quality at all production sites from the parts design stage onward to help ensure product quality.

Nissan is promoting stronger global management for the head offices of its suppliers with global operations and working to enhance its own global quality management. When suppliers fall short of Nissan standards in their production control or quality control during the manufacturing process, the company offers support for their improvement efforts by visiting the shop floor and seeing what is actually happening.

Nissan has also prepared checklists based on successful resolution of past issues. The company is implementing various quality-improvement measures by working not only with its direct suppliers but also with its tier-2 suppliers.

## Swift Improvement of Quality in Local Markets

Nissan is strengthening direct communication with sales companies and customers to promptly identify and respond to customer dissatisfaction and defects. The Total Customer Satisfaction Function (TCSX) addresses customer dissatisfaction and quality issues based on information from sales companies and the customer call center. It shares the information with the R&D and manufacturing divisions to investigate the causes and come up with countermeasures. The countermeasures are reflected on the production models in the market. In this way, Nissan seeks permanent solutions in order to prevent additional issues.

The global expansion of Nissan's corporate activities has increased the company's exposure to potential customer dissatisfaction and quality issues in many more regions of the world. Nissan established its Field Quality Centers (FQCs) > with the goal of promptly gaining an understanding of quality issues and analyzing the causes. There are now 11 FQCs in operation in Japan, the United States, Europe, China, Mexico, Brazil, South Africa, India, Australia, Indonesia and Malaysia.

The centers conduct market quality research and analysis in five phases. First, they recall problem products from the market to clarify the facts and conduct detailed interviews to replicate the defects. Second, they bring suppliers together with the company's R&D and manufacturing personnel to share information, to decide on areas for further investigation and to assign responsibilities. Based on the findings of the detailed studies, all staff members gather again to scientifically pinpoint the cause of problems and decide on specific countermeasures. These measures are incorporated in future R&D and manufacturing activities and in building new management structures to prevent recurrence of reliability issues or incidents.

#### Producing Products of Consistent Quality Worldwide

Nissan has adopted the 4G Strategies to produce high-quality products globally. These strategies enable Nissan to quickly create optimum production structures for providing consistently high-quality products to customers around the world.

#### Nissan's 4G Strategies

Global Training Centers (GTCs)

#### Global Production Engineering Center (GPEC)

The GPEC develops optimized production processes through focused trials and analysis of new vehicles. In addition to dramatically improving quality in the vehicle production preparation stage, it strives to establish quality consistency globally by spreading high quality standards to manufacturing plants in and outside Japan.

#### Global Packaging Design Center (GPDC)

The GPDC functions as a training center for developing logistics specialists to work at manufacturing bases. Training includes parts packaging design, packaging testing and evaluation methods, CAD and optimum logistics cost management to maintain high quality.

#### Global Launching Experts (GLEs)

Manufacturing quality and productivity depend greatly on the skills of individual workers. To raise these skills to a competitive level in Nissan's plants worldwide, the GTCs carry out training through classroom lectures and skills training activities based on the Alliance Production Way. Graduates of the Master Trainer programs take part in training programs for local staff in regional training centers, effectively passing their skills on to others.

GLEs provide support in resolving issues related to *monozukuri* (production) that arise in the new vehicle launch phase. Nissan is meeting QCT (quality, cost, time) targets for each new vehicle launch thanks to the evaluations and advice from GLE core members and the support of GLE registered members.

# website Click here for more information on Field Quality Centers.

#### Fair and Swift Action on Major Quality Issues

Nissan's primary responsibility as a manufacturer is to make every effort to ensure that product issues do not occur in the first place. Another duty is to ensure that vehicles, which are extraordinarily complex industrial products, are manufactured to be as ready as possible for various eventualities. Nissan's approach is to conduct recalls transparently and to handle them fairly and promptly. The decision to conduct a recall is based on the company's compliance with relevant laws and consideration of how the issue may affect customers' safety. When a recall is judged to be necessary, Nissan implements it swiftly, placing top priority on customers' safety and on minimizing disruption to their lives.

Nissan's robust recall decision process has received high praise from the U.S. Department of Transportation as a model for the automotive industry, and has already been implemented at all operation sites worldwide.

#### SALES AND SERVICE QUALITY

While targeting high quality in its vehicles, Nissan works to increase the quality of its sales and service to customers in the buying process. The goal is to exceed customer expectations at all contact points. Through effective management of sales and service quality at sales companies in major national markets around the world, Nissan strives to improve customer satisfaction (CS). Based on the Nissan Sales and Service Way (NSSW) principles, the company's goal is to achieve top-level CS in 16 key national markets including Japan, the United States and major European markets, thereby boosting its brand image worldwide.

#### **Customer Sales and Service Evaluation**

To deliver top-level sales and service quality, the purchase and service experience of Nissan car owners must be analyzed objectively. Studies are implemented based on third-party surveys in each national market.

Nissan has set J.D. Power's Sales Satisfaction Index (SSI; covering such items as delivery process, delivery timing and sales staff) and Customer Service Index (CSI; including service quality, vehicle pick-up and service advisors) as internal indicators. In fiscal 2015, Nissan maintained top levels for SSI in Japan, China and Mexico, and for CSI in Japan and Mexico.

#### The Nissan Sales and Service Way

Nissan has established the Nissan Sales and Service Way (NSSW) as a set of global guidelines. These aim to improve customer perceptions of Nissan's brands and products, as well as to increase satisfaction with its sales and marketing activities and after-sales service. The company conducts a range of activities to increase customer satisfaction and to improve sales and service quality based on the NSSW. These activities include dealer training to improve product knowledge, technical capability and customer handling, as well as the provision of guidance to improve dealership operations in response to customer satisfaction surveys. Nissan is also developing personnel and systems to put these improvements into place and to focus its operations even more on customer needs, with care given to feedback collected through call centers and other channels.

Nissan carries out these initiatives globally while keeping in mind differences in cultural conditions and customs across countries and regions. The company strives to provide the best customer service during the purchase and ownership experiences.

#### Improving Dealership Operations

To ensure thorough application of NSSW guidelines at a global level and to boost the quality of sales and service activities at dealerships, Nissan trains specialist staff and makes continual improvements to these activities. The company has started training experts at sales companies tasked with enhancing operations by instructing them on appropriate customer relations practices.

These specialists gain an accurate picture of what takes place on dealership sales floors, supporting dealers with measures fitted to their individual situations. They also visit dealerships after analyzing SSI and CSI surveys and identifying customer sentiment, clarifying the issues by observing workplace operations and interviewing on-site staff. They then discuss potential solutions with the staff and provide guidance so these outlets can make autonomous improvements.

#### New Tools for Supporting Dealerships

Nissan dealerships aim to provide easy-to-understand information so that customers can make decisions on the models they are considering with comprehensive knowledge of the vehicles' appeal. Outlets also endeavor to quickly and accurately grasp customers' repair and inspection needs after purchase. There has recently been room for improvement, though, with dealer actions failing at times to satisfy customers due to repetitious questions, long waiting times and complicated explanations.

Nissan reviewed its new vehicle purchase and repair processes from a customer perspective, introducing digital tools to support dealership operations. For example, dealers previously referred to a standard catalog when explaining vehicle functions at the time of delivery. Now, digital tools enable customers to select functions they wish to know about, enabling more comprehensive, effective and efficient explanations. Nissan strives to implement meticulous service tailored to customer needs throughout the entire process of purchasing a vehicle or bringing it in for repair or inspection.

#### Establishing Global Dealership Standards

To meet changes in customers' expectations of dealerships and purchasing behavior, Nissan is making improvements to sales facilities, as well as their service approaches and other intangible aspects. The Nissan Retail Environment Design Initiative (NREDI) 2.0 is a newly developed global standard for the next generation of dealerships under the Nissan brand.

The company has overhauled dealership design and layout with an eye on addressing customer dissatisfaction with existing stores, responding to diversifying needs and boosting brand appeal. Nissan is integrating these overhauls with a rethinking of other points of customer contact, such as its website, as well as intangible systems and services in dealerships. It aims to create attractive dealerships for all customers—whether they have come to purchase a new car or to get a vehicle inspected or serviced—that are comfortable, welcoming places to spend time while also offering needed services as efficiently as possible.

Nissan's goal is to provide its customers with dealership experiences of globally consistent high quality. New outlet construction has begun as a pilot scheme in major markets; the new standard will be progressively rolled out worldwide.

# **VALUE CHAIN**

The challenges facing modern societies, such as climate change and energy supply, are increasingly global in their scope. As a business with worldwide operations, Nissan pursues its activities on a similarly global scale, with a value chain that extends throughout the world. By improving CSR management through sharing fundamental values and principles with its business partners, Nissan promotes consistency in the CSR activities undertaken throughout the value chain.

Together with its business partners, Nissan aims to achieve sustainable growth built on a foundation of mutual trust. The company listens carefully to and works with its suppliers and dealers as equal partners, developing and maintaining cooperative and competitive relations that enable it to implement best practices.

#### NISSAN'S ACTIONS

Renault-Nissan CSR Guidelines for Suppliers distributed to:



# **VALUE CHAIN**

# SCORECARD

## FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
	Promote thorough understanding and implementation of CSR at suppliers, particularly instilling recognition of legal compliance	Level of implementation and confirmation of <i>Renault-Nissan</i> <i>CSR Guidelines for Suppliers</i> at suppliers	<ul> <li>To ensure thorough legal compliance with new regulations, began revision of Renault-Nissan CSR Guidelines for Suppliers</li> </ul>	Distributed revised <i>Renault-Nissan CSR Guidelines for</i> <i>Suppliers</i> to all suppliers worldwide Adopted third-party assessment of suppliers' CSR activities in 2016 to raise the standard of those activities	~~	Raise standards of suppliers' CSR activities through third-party assessment	Proceed continuously to ensure legal compliance in the supply chain and thorough understanding and
Working with suppliers	Conduct conflict mineral surveys to instill CSR mindset in the supply chain	Level of implementation of conflict mineral surveys	<ul> <li>Expanded survey scope from Japan, U.S. and Europe to include Asia</li> <li>Published Nissan policy and activities on website to ensure thorough understanding and implementation of activities throughout supply chain, including Asia</li> </ul>	<ul> <li>Conducted follow-up surveys at suppliers, where necessary, based on the previous year's results</li> </ul>	~~	<ul> <li>Continue to conduct conflict mineral surveys</li> </ul>	implementation of appropriate measures
	Promote management of controlled and banned substances at suppliers to meet environmental regulations	Level of implementation of Nissan Green Purchasing Guidelines and specific substance management initiatives	<ul> <li>Promoted compliance with EU REACH Regulation among suppliers</li> </ul>	<ul> <li>Distributed revised Nissan Green Purchasing Guidelines, expanding application of chemical substance management sections to cover all global regions, and ensured thorough understanding</li> </ul>	~~	<ul> <li>Continue to promote management of controlled and banned environment- impacting substances</li> </ul>	Continuously advance cooperation with suppliers regarding environmental management to help reduce use of environment- impacting substances
	Reduce environmental impact in the supply chain based on environmental surveys (CO <sub>2</sub> emissions, wastewater and other waste) at suppliers	Conducting of surveys at suppliers representing more than 70% of total procurement by value	<ul> <li>Implemented surveys by international NPO CDP, sharing outcomes (focus of CDP's survey activities and survey results) with suppliers to enhance process</li> </ul>	<ul> <li>Continued implementation of CDP surveys and began follow-up activities based on changes in supplier performance</li> </ul>	~~	<ul> <li>Continue to conduct environmental surveys of CO<sub>2</sub> emissions, wastewater and waste at suppliers and carry out follow-up activities</li> </ul>	
	Implement the PDCA cycle to make improvements to promotion of CSR activities at dealerships in Japan	Level of implementation of compliance self-inspection program	<ul> <li>Continued implementation of twice annual compliance self-inspection program to enhance compliance awareness</li> </ul>	<ul> <li>Continued implementation of twice annual compliance self-inspection program to enhance compliance awareness</li> </ul>	~~	<ul> <li>Continue to conduct and regularly review self-inspection program</li> </ul>	Provide support to help cement voluntary efforts at dealerships
Working with		Discussion of policies for improvement based on examples of violations	<ul> <li>Held June meeting for dealership representatives to share information about examples of violations, improvement policies and training</li> </ul>	<ul> <li>Among meetings for dealership representatives, held every month except August, two meetings were dedicated to sharing information about examples of violations, improvement policies and training</li> </ul>	~~	<ul> <li>Advise and warn dealers based on examples of violations and discuss policies for improvement</li> </ul>	
dealers		Level of implementation of training based on examples of violations and initiatives to prevent violations	<ul> <li>Distributed training materials and held training to prevent violations</li> </ul>	<ul> <li>Distributed training materials and held training to prevent violations including information leaks, harassment and reckless driving</li> </ul>	~~	<ul> <li>Prepare training materials based on examples of violations and conduct training as necessary</li> </ul>	
		State of initiatives for building new system to bolster prompt internal information sharing and responses when violations occur	<ul> <li>To strengthen compliance, maintained system to bolster prompt internal information sharing and responses when violations occur</li> </ul>	<ul> <li>To strengthen compliance, maintained system to bolster prompt internal information sharing, preventive measures and responses when violations occur</li> </ul>	~~	<ul> <li>Maintain system to bolster prompt internal information sharing and responses when violations occur and review as necessary</li> </ul>	



#### **NISSAN'S APPROACH TO THE VALUE CHAIN**

To promote effective purchasing activities, in 2001 the Alliance partners established a common purchasing company, the Renault-Nissan Purchasing Organization, and steadily increased the scope of its activities. This organization now covers all purchasing domains, incorporates all purchasing functions, and builds mutually-profitable business partnerships with all suppliers.

Nissan uses a common, transparent process and criteria worldwide when sourcing suppliers, and provides a wide variety of opportunities for other companies to do business with it, regardless of their nationality, size or history with the company. When making selections, the relevant Nissan divisions meet together to examine from a range of perspectives the proposals received from suppliers. Nissan explains its decision to every supplier that has taken part in the sourcing process, as part of a thoroughly fair, impartial and transparent system.

Transactions with suppliers are based on the three values of trust (work fairly, impartially and professionally), respect (honor commitments, liabilities and responsibilities) and transparency (be open, frank and clear), which are important to the Alliance.

Nissan and Renault have produced a booklet, *The Renault-Nissan Purchasing Way,* ➡ outlining the values and processes the Alliance sees as important when doing business. This booklet has been shared with the tier-1 suppliers of Renault and Nissan since 2006.

In Japan, Nissan has also been practicing transactions confirming to "proper trading guidelines" issued by the Ministry of Economy, Trade and Industry for the automotive industry.

#### **COMPANY ORGANIZATION FOR THE VALUE CHAIN**

The Renault-Nissan Purchasing Organization







 website
 Click here to download The Renault-Nissan Purchasing Way.

#### **WORKING WITH SUPPLIERS**

To make its global supply chain sustainable, Nissan aims to conduct ethically-, socially- and environmentally-responsible business at every stage. The company collates and manages a database of plant locations, total value of purchases, and other basic information for all of the suppliers with which it conducts transactions. Building on this understanding of its partners, in the value chain and based on the *Renault-Nissan CSR Guidelines for Suppliers* and the Nissan Green Purchasing Guidelines, The company is working together with all its suppliers to instill CSR principles.

#### Renault-Nissan CSR Guidelines for Suppliers

To effectively implement CSR practices worldwide, in December 2015, Renault and Nissan revised the *Renault-Nissan CSR Guidelines for Suppliers*. Renault and Nissan have distributed the revised guidelines to all suppliers worldwide. The Alliance partners have also asked suppliers to further distribute them to their own business counterparts to ensure they are shared throughout the supply chain. The 2010 first edition of the guidelines was drawn up for distribution by Renault and Nissan with reference to the CSR guidelines of the Japan Automobile Manufacturers Association, Inc.

Key points of revision clarify the following areas: based on new Japanese government guidelines and regulations, updating procurement policy to include responsible mineral procurement; eliminating association with antisocial elements; requiring shared commitment to CSR activities with suppliers at the time the guidelines are distributed; and, beginning third-party assessment of Alliance supplier CSR activities in 2016. As part of efforts to instill CSR practices at business partners in emerging countries, the new guidelines were published in Chinese, in addition to English and Japanese versions published to date.

Via explanations of expected practices in 26 categories across the following five areas, the guidelines aim to help suppliers to review their business activities from a CSR viewpoint and to implement CSR activities.

1 Compliance: Complying with laws; corruption prevention, etc.

- 2 Safety and Quality: Providing products and services that meet customer needs, etc.
- S Human Rights and Labor: Prohibition of child labor and forced labor; complying with working hours and remuneration laws, etc.
- Environment: Implementing of environmental management; reducing greenhouse gas emissions, etc.
- Information Disclosure: Open and impartial communication with stakeholders, etc.

The guidelines mandate compliance with laws and regulations. If suppliers engage in activities that violate the law, they are to report this immediately, along with investigation results, and to submit corrective countermeasures. In case of infringement, Nissan will take rigid actions based on its company rules and do everything necessary to prevent a recurrence.

#### Confirming CSR Observance at Suppliers

Nissan oversees its suppliers' observance of CSR requirements by confirming their acceptance of the *Renault-Nissan CSR Guidelines for Suppliers* and by checking their environmental management systems and environmental activities to be conducted with Nissan at time of selection.

In 2016, the Renault-Nissan Alliance is scheduled to begin third-party assessment of suppliers' CSR activities and raise the standard of those activities through mutual confirmation with suppliers.

The company also conducts CSR training in its purchasing department to ensure that employees there are equipped to check supplier CSR activities during routine operations.

Any problems in the supply of parts and materials may lead to problems for Nissan's production and value chain as a whole. The company therefore addresses CSR comprehensively, including confirmation of risk affecting suppliers' ability to supply under normal circumstances; annual follow-ups on suppliers' quality, cost, delivery, development, management (QCDDM) performance; and measures crafted together with suppliers in response to natural disaster risk to ensure production continuity or early restoration of capacity.

Nissan promotes supplier observance of CSR requirements based on risk management, constantly assessing the situation at suppliers based on a range of factors. If cases of high risk emerge, the company works with suppliers to rapidly draft and implement countermeasures.

 website
 Click here to download the *Renault-Nissan CSR Guidelines for Suppliers.*

▶ website

Click here to

Guidelines

download the Nissan Green Purchasing

#### Suppliers and Environmental Activities

Nissan shares its environmental philosophy and environmental action plan with suppliers. To improve environmental performance throughout the value chain, Nissan published the Nissan Green Purchasing Guidelines an in 2001, and has since then promoted actions in line with them. In December 2015, the company published a revised version of the guidelines, expanding the application of sections related to management of chemical substances to cover all global regions, and ensured that suppliers fully understood the revisions. The guidelines offer a more detailed explanation of the environment section in the *Renault-Nissan CSR Guidelines for Suppliers*.

Environmental activities at suppliers are based on the core components of compliance with environmental regulations and Nissan's basic environmental principles and activities to reduce environmental load.

To reflect trends in regulations worldwide, such as the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation and the European Reusability/Recyclability/Recoverability (RRR) Directive, Nissan has also added further banned substances and expanded component data management globally. Further, the company checks environment-loading substance management and activities when suppliers are selected for new cars. Nissan informs suppliers of specific actions to comply with the REACH Regulation, and requires their compliance.

#### ▶ page\_19

▶ website

Click here to

Guidelines.

download the revised

version of the Nissan

Green Purchasing

Click here for more information on Nissan Green Program 2016.

#### ▶ page\_123

Click here for more information on supply chain environmental survey data.

# Based on the Nissan Green Program 2016, 2016, 2016, 2016, 2016, 2016, 2016, 2017, 2018, 2019, 20

environmental impact and strategies. In fiscal 2015, in partnership with CDP,

Nissan worked to increase the accuracy of performance data.

#### The Role of the Nissan Green Purchasing Guidelines

The Renault-Nissan Purchasing Way Basic Alliance principles for purchasing • Shared values with suppliers (trust, respect, transparency) • Supplier sourcing process • Support for suppliers

Nissan Green Program 2016 Mid-term environmental action plan

#### Renault-Nissan CSR Guidelines for Suppliers = Safety and quality

- Human rights and labor
- Environment •-
- Compliance
- Information disclosure

#### Nissan Green Purchasing Guidelines

- Compliance with regulations and Nissan's basic environmental principles
- Establishment of management system
- Management of chemical substances
- Activities to reduce environmental load
   Completion of surveys on CO<sub>2</sub> emissions, water usage, other environmental factors

#### Promotion of Monozukuri Activities with Suppliers

Nissan has been working to continually improve the competitiveness of its products through its Monozukuri Activities program, a collaboration among suppliers and Nissan that commenced in 2008. Since 2009, these activities have expanded through the joint THaNKS Activities initiative, which emphasizes trust and cooperation between Nissan and its suppliers. With the goal of working with suppliers to become cost leaders in today's challenging market conditions, the company is striving to improve product quality, reduce costs, and rationalize manufacturing through measures that include increasing production volume per part, promoting localization and improving logistics. Based on activities at its own plants, Nissan is also making efforts together with major suppliers to reduce their electricity, gas and other energy costs and CO<sub>2</sub> emissions, as an energy-efficient THaNKS Activities initiative.

#### THaNKS Trusty and Harmonious Nissan Kaizen activity with Suppliers

In fiscal 2013, Nissan introduced the Total Delivered Cost (TdC) Challenge as part of efforts to achieve the goals of its mid-term business plan, Nissan Power 88. The initiative aims to optimize all fluctuating costs, including for specifications, materials, exchange rates and logistics. Nissan's various functional departments and suppliers are coming together to make strong efforts in the TdC Challenge and improve both quality and supply.

#### **Engagement with Suppliers**

▶ website

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 Click here for more information on the

> mid-term business plan, Nissan Power

> > Providing suppliers with timely and accurate information is a key task for Nissan. Suppliers' meetings are held in Japan and overseas to spread understanding of the company's purchasing policy for the fiscal year and mid-term business plan, as well as other matters. In the case of Japan, Nissan holds monthly meetings and directly informs suppliers of its production plans, various activities and requirements. The meetings are also an opportunity for Nissan to respond to supplier questions and requests.

#### **Recognizing Supplier Contributions Worldwide**

Each year Nissan recognizes the contributions of its suppliers with awards presented in each of the regions where it operates, as well as with two worldwide supplier awards—the Global Quality and Global Innovation Awards. These are presented to suppliers that have contributed to its business performance at the global level. This awards system aims to encourage suppliers in the global supply chain to embrace Nissan's management approach, which balances economic activities of quality, cost reduction and technological development with environmental concern and social responsibility.

Global Quality Award recipients are selected by Nissan's purchasing, quality and other divisions using standard criteria applied worldwide. Global Innovation Award recipients are selected from suppliers nominated by its production, development and quality divisions in the two categories of product technology and process management. In fiscal 2015, five companies received Global Quality Awards, while Global Innovation Awards went to eight companies in the product technology category.

#### **Conflict Mineral Policy and Measures**

In August 2012, the U.S. government enacted regulations requiring companies to report the use of four minerals mined in the Democratic Republic of the Congo and surrounding countries, believed to be sources of funds for armed insurgents. Agreeing with the spirit of this legislation and with the aim of ensuring full CSR awareness, Nissan investigated the supply chain for any use of conflict minerals and established a policy aimed at the non-use of conflict minerals, publishing related information on its website. Investigations began in fiscal 2013.

The search for conflict minerals throughout the global supply chain is a large-scale undertaking. Nissan works together with organizations including the Japan Automobile Manufacturers Association, Inc., the Japan Auto Parts Industries Association and the Japan Electronics and Information Technology Industries Association, and regularly discusses the issue in working groups, while considering the best methods for investigation and result analysis.

▶ website

 Click here for more information on Nissan's conflict mineral measures.

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#### WORKING WITH DEALERS

Nissan undertakes various measures to ensure that its approach to compliance is shared with dealerships and to enhance its internal controls. The company is strengthening lines of communication with dealers to further improve its CSR management.

#### Working with Dealers for CSR Management

To promote consistency in the CSR management approaches taken by Nissan and its dealers, the company carries out activities on an ongoing basis aimed at helping dealerships in Japan enhance their compliance.

Twice a year Nissan organizes self-inspection programs at all dealerships to enhance understanding of compliance matters and improve their compliance management status. The dealerships check their current compliance status and issues based on Nissan's self-assessment checklists and use the PDCA (plan, do, check, act) cycle to make voluntary improvements. Nissan also annually updates, edits and expands the checklists based on audit results, informing dealerships of changes and ensuring compliance. The program status is shared among dealerships and applicable Nissan departments and reports are made to the Board of Directors. Through measures to check improvements and their effectiveness, and a unified approach with dealerships, Nissan strives to further improve its CSR management.

When major compliance issues occur, the legal, communications, external and government affairs and other applicable Nissan departments work together with dealers to take appropriate action.

#### **Compliance Training for Dealers**

Nissan conducts the following initiatives as part of training for dealers:

#### Regular Revision of Code of Conduct

 Click here for more information on the Nissan Global Code of Conduct.

▶ page\_105

# Every three years, Nissan revises its Code of Conduct ■ in response to legal amendments and social demands of corporate ethics. Nissan trains its employees concerning revisions and ensures thorough knowledge and implementation of the updated code. Nissan also holds training for dealers based on the Nissan Code of Conduct. The last revision of the Code of Conduct was in October 2013.

#### Bolstering Information Security and Preventing Harassment

Based on teaching materials that cover the same topics as taught in Nissan's information security courses, each dealer implements training to avert risks arising from serious incidents occurring in the course of daily activities, such as virus infections, unintended e-mail transmissions and information leaks due to misplaced or stolen PCs.

Examples of inappropriate posts on social networking services or blogs that are in violation of Nissan's global social media policy are shared with dealers, which further share these internally to help prevent such posts. To enhance awareness and prevent recurrence, Nissan shares information on the potential adverse impact, not just with the dealers but also with the Nissan Group as a whole, when such posts are made.

In the light of growing social interest in abuses of authority and incidents of such abuse at dealerships, Nissan is providing training materials with a focus on power harassment. Since fiscal 2012, dealers have implemented training on such topics as "examples of acts and statements that constitute harassment," "what impact a harassment case can have," "past incidents involving dealers" and "what steps should be taken when a case comes to light." In fiscal 2015, sections of the training materials, principally relating to "examples of acts and statements that constitute harassment," were again updated with reference to recent cases.

## EMPLOYEES

The needs of customers are becoming increasingly diverse. To meet these needs Nissan employees from different backgrounds must work together. Employees are the driving force for the sustainable growth of Nissan. Therefore, the company places great importance on establishing a workplace that maximizes the performance of all.

The global expansion of Nissan's corporate activities has meant the growing diversification of not only Nissan's customers but also its employees. Work and lifestyle choices are changing, driven by demographic changes such as an aging population and urbanization. Nissan believes that for employees to work in a worry-free, self-initiated manner, they need to be able to pursue their careers regardless of gender, nationality or other factors and to choose from among various work styles to suit their particular stage of life.

The workplace environment is being strengthened around four pillars: "respecting diversity as a core component of management strategy," "offering career development and learning opportunities," "ensuring employee safety and health" and "strengthening internal communication."

#### Ratio of managerial posts filled by women (Japan):



**NISSAN'S ACTIONS** 

#### **EMPLOYEES**

#### SCORECARD

#### FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Respect for diversity	Raise the ratio of women in managerial positions to 14% or higher globally (10% or higher in Japan)	Ratio of women in managerial positions	Global: 12% Japan (Nissan Motor Co., Ltd.): 8.2%	Global: 13% Japan (Nissan Motor Co., Ltd.): 9.1%	11	Japan: Enhance career support for female employees and work-life management for all employees Global: Implement measures in line with situation in each country	Provide greater value to customers through diversity- enhanced work and personal lives of employees
Career development and learning opportunities	Build a learning-oriented corporate culture	The lowest of the average scores for each course in annual trainee satisfaction surveys (on a scale of 1 to 5)	4.2 or higher	4.2 or higher	11	Provide learning opportunities that lead to employee growth and satisfaction	Create a learning-oriented corporate culture and an organization that allows individual employees to achieve growth
	Strengthen support for self-initiated career development	Open Entry System (program under which employees can apply for advertised position openings) fill rate	64%	53%	11	Increase the Open Entry System fill rate by improving matches between available posts and applicants' career backgrounds	Provide support for career development that emphasizes employees' voluntary action
Building safe workplaces	Strengthen efforts to create a safe work environment	Lost-time injuries frequency rate (global) (Total lost-time injury cases + total working hours × 1 million)	0.95	0.75	11	<ul> <li>Institute the safety auditing methods developed in Japan</li> <li>Develop safety management supervisors in each country</li> </ul>	Globally implement the same thoroughgoing safety management standards as in Japan
Dialogue with employees	Aim for high implementation and participation rates of employee satisfaction surveys to better capture employees' views	Number and participation rate of global and regional employee satisfaction surveys	Conducted global employee satisfaction surveys of employees in North and Latin America, Europe, Middle East and Asia; global participation rate of 95% achieved	Followed up previous year's survey activities with FY2015 global employee satisfaction surveys in October–November 2015; global participation rate of 95% achieved	~~	Improve workplace environments by conducting global employee satisfaction surveys on an ongoing basis and swiftly implementing the PDCA cycle	Apply the findings of employee satisfaction surveys to create workplaces that enable workers to make maximum use of their skills



#### **NISSAN'S APPROACH TO EMPLOYEES**

Nissan strives to create a meritocratic workplace where employees are motivated to rise to challenges and are able to work safely and comfortably. Nissan ensures employee rights by requiring that all employees respect the human rights of others and forbids discrimination against or harassment of others based on race, nationality, gender, religion, physical capability, sexual orientation, age, place of origin or other reason. Nissan employees are empowered to report the discovery of discrimination in the workplace. By respecting employee diversity, Nissan promotes the establishment of a work environment that maximizes the performance of every employee and encourages teamwork to achieve ambitious goals.

The company has established the Nissan Global Code of Conduct, ■ which applies to all Group employees worldwide. It describes how employees should act, and the standards apply globally to all Nissan Group companies.

The Nissan Way is a guiding principle that aims to ensure sustainable growth by motivating each employee. Based on the company's belief that "the power comes from inside," the Nissan Way outlines five mindsets and five actions. The Nissan Way is implemented throughout the Group to ensure that the activities of all employees lead to value creation for the customer.

> The Nissan Way has been made available to employees worldwide in eight languages (Japanese, English, French, Chinese, German, Spanish, Dutch and Russian). It places importance on approaching all issues with clarity and shared understanding as well as nurturing a mindset to achieve maximum results with minimum resources. It also encourages employees to pursue ambitious goals. Welcoming diversity by being inclusive of a variety of views can establish a work environment that maximizes the performance of every employee—regardless of gender or nationality—and engender new thinking that can contribute to the company's business performance.

Nissan employees are educated regarding the Nissan Way and are evaluated based on its principles. Best examples of implementing the Nissan Way are shared globally, and top executives communicate its importance throughout the company in an effort to promote its value.

#### "The power comes from inside"

The focus is the customer, the driving force is value creation and the measurement of success is profit.

#### Mindsets

#### O Cross-functional, Cross-cultural Be open and show empathy toward different views; welcome diversity.

#### 2 Transparent

Be clear, be simple, no vagueness and no hiding.

#### 3 Learner

Be passionate. Learn from every opportunity; create a learning company.

#### 4 Frugal

Achieve maximum results with minimum resources.

#### Competitive

No complacency, focus on competition and continuous benchmarking.

#### Actions Motivate

How are you energizing yourself and others?

#### Ommit and Target

Are you accountable and are you stretching enough toward your potential?

#### 8 Perform

Are you fully focused on delivering results?

#### 4 Measure

How do you assess performance?

#### **6** Challenge

How are you driving continuous and competitive progress across the company?

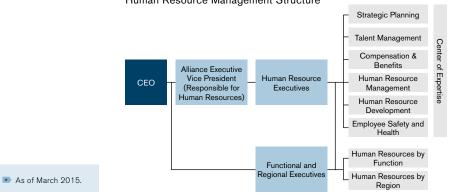
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 Click here for more information on the Nissan Global Code of Conduct.

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#### HR ORGANIZATION

Nissan maintains three human resource management initiatives centered on (1) a specialized Center of Expertise, (2) human resources by function and (3) human resources by region. These three approaches, respectively, support Nissan's global operations, the Renault-Nissan Alliance and management by function and region. Regarding human resource management by region and function, reports are submitted not only to executives in charge of human resource matters but also to those responsible for each region and function. Also, an organization independent of the human resource function exists for diversity promotion.



#### Human Resource Management Structure

#### **RESPECT FOR DIVERSITY**

Fostering diversity is an important management strategy at Nissan. The company undertakes a number of initiatives to realize the goal of achieving sustainable corporate growth while respecting diversity.

#### Promoting Diversity Around the Globe

Nissan's diversity policy is determined by the Diversity Steering Committee (DSC), comprising executives representing each business division. The DSC plays a leadership role in promoting diversity in Japan and Europe, while in North America, this role is performed by the Americas Diversity Council (ADC). The Diversity Development Office (DDO) is a department dedicated to diversity issues in Japan, and the Americas Diversity Office is charged with promoting diversity in North America. In other markets, diversity is promoted by the human resource and other departments.

#### Global Structure for Diversity Promotion

Region	Promoting Body	Office in Charge
Japan (Global Headquarters)	Diversity Steering Committee	Diversity Development Office
North America	Americas Diversity Council	Americas Diversity Office
Europe	Diversity Steering Committee (Europe)	Human Resources and General Affairs (Europe)
Latin America and the Caribbean	-	Governmental Affairs and Social Responsibility
Africa and the Middle East	-	Human Resource Division (Africa and the Middle East)
Asia and Oceania	-	Human Resource Division (Asia and Oceania)

#### Diversity as a Source of Strength

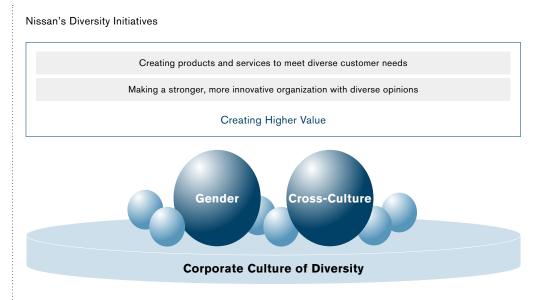
For Nissan, diversity is a source of strength. Ideas and perspectives contributed by employees from diverse backgrounds—in terms of gender, nationality, culture, age, academic background and lifestyle—can produce creative solutions with higher value, leading to enhanced corporate performance. Diversity rests at the foundation of Nissan's business strategy to meet the diverse needs of global customers by offering better products and services. All Nissan facilities are engaged in efforts to harness workplace diversity in the areas of gender and culture. Nissan strives to increase female employees' participation, while also actively exploring ways to create higher value through cultural diversity, in particular by utilizing the cross-cultural nature of the Alliance formed with Renault in 1999.

Work-life management is a key component of Nissan's efforts in Japan, where all employees, regardless of their gender or age, may flexibly choose a suitable lifestyle for their particular stage in life. To ensure a workforce in which female employees boast a diverse range of skills, Nissan Motor Co., Ltd. has guidelines calling for 50% of newly hired office workers, 15% of engineers and 25% of technicians to be women. In North America, employees with diverse backgrounds in terms of race, sexual orientation and military service contribute to enhancing Nissan's corporate value. In Europe, Nissan is advancing cross-cultural corporate initiatives with many Alliance partners.

Click here for more information on Nissan's diversity.

▶ website

The company also undertakes a full set of initiatives to nurture a diversity-oriented mindset among all employees to reinforce a corporate culture that respects diversity.



#### **Global Initiatives to Support Women's Participation**

Since fiscal 2004, ongoing support has been provided for the participation of female employees in two main areas: career development and the business process.

#### Supporting Women's Career Development Around the Globe

The participation of women, particularly in management positions, is essential to providing diverse value to customers. Nissan focuses on increasing female representation in all levels of management and providing training to ensure that top candidates will be ready to take on greater responsibility. Support is provided for women's career development in every region where the company operates.

Specifically, activities are organized that are geared toward female employees, including skill-development training courses and networking events. Examples of career development initiatives include mentoring programs and roundtables led by Nissan executives. Activities focusing on young female engineers are conducted as well.

In Japan, Nissan provides personalized support for female employees through individual counseling sessions with career advisors. Career development meetings are organized for young female employees so they may network with other professional women outside of the company and with women who have risen into management roles in Nissan. Interviews with senior female employees contributing in a variety of fields within the company are posted on the corporate intranet to encourage more women to develop their careers.

As a result of a broad range of efforts, women comprise 7.0% of general and higher-level managers in Japan (as of April 2016), 3.5 times the 2008 level of 2.0%, and a total of 9.1% of managerial positions are filled by women. This compares favorably to the average of 3.7% for Japanese manufacturers with 1,000 or more employees (according to 2015 statistics from Japan's Ministry of Health, Labor and Welfare).

As of April 2016, women fill 13% of the managerial positions at Nissan globally, up from 7% in 2008. Nissan plans to raise the global ratio of women in managerial positions to 14% by April 2017, with many being appointed to overseas assignments.

14%

10%



#### Ratio of Women in Management Positions

#### 0 2017 (Year) 2012 2013 2014 2015 2016 (target) Nissan (Global) Nissan (Japan)

#### Women's Forum

The Renault-Nissan Alliance sponsors the Women's Forum for the Economy and Society, which is an international platform to promote the advancement of women in the workplace. The annual global meeting in France gives women an opportunity to build networks and expand horizons through dialogue with their counterparts in diverse industries and by participating in workshops. Employees from Nissan Group companies around the globe are selected to participate in the meeting each year, and 10 took part in 2015.

#### Inviting Women's Input in the Business Process

In Japan, women have a significant influence on car-buying decisions, as 30% of all cars are purchased by women and roughly another 30% of purchases are by men with input from women, meaning that women participate in nearly two-thirds of vehicle purchase decisions. A similar trend can be seen globally as well. Adopting female employees' views is essential for meeting diverse customer needs worldwide.

Nissan facilitates input from female employees-including those working at affiliated and sales companies-in all stages of its business, from the development of new vehicles through their manufacture and sales. Models like the Nissan Note global compact car have benefited from women's recommendations. For example, designers and engineers adopted the recommendation to adjust the rear door's opening angle to make it easier for both men and women to access child seats. In the assembly stage as well, Nissan promotes ergonomic design of equipment and work processes at its manufacturing plants to benefit female workers. As a result, this benefits women while at the same time effectively increasing efficiency and reducing errors for all employees. The company has been recognized for its efforts in these areas, receiving the Incentive Prize in the Japan Productivity Center's 2016 Empowerment Awards.

Nissan sales staff must also respond to the needs and questions of men and women customers alike. The Nissan Ladies First Project was launched in fiscal 2013 to introduce shop designs and services with female customers in mind. A pivotal role in the project is played by female sales staff known as CAs, or car-life advisors. Both male and female customers report high satisfaction with Nissan's female CAs, and the company is making efforts to offer training and improve the work environment to give female employees more room to succeed. A workshop for young female CAs was held in June 2015. As of March 2016, 1055 female CAs were active across Japan,

accounting for 8.5% of the national total, compared to 7.0% in March 2015. A Ladies First Shop certification program was also launched in 2013 to enhance the satisfaction of female customers with both showroom and after-sales service experiences. Some 262 shops nationwide (as of March 2016) offer special services for female customers.

Nissan also employs women as technical advisors (TAs) to help facilitate the vehicle maintenance process for customers. Nissan has received a positive response for the polite and responsible service provided by the female TAs, thereby contributing to the enhancement of customer satisfaction of sales companies. Training courses and informal gatherings for female TAs are held to promote networking and skills development.

#### A Firm Grounding for Cultural Diversity

Nissan recognizes the need to make full use of the strengths and abilities of its multinational, multicultural family of employees in order to develop its business globally. The company is working to leverage the synergy created through the cross-cultural Alliance with Renault, which not only recognizes and accepts cultural differences but also seeks to make cultural diversity a source of strength. Overseas job transfers have increased in recent years, and many transferees, both men and women, are no longer necessarily from Japan, the United States or other major markets. This is seldom seen at other global businesses and demonstrates Nissan's commitment to this area.

Nissan makes cultural diversity an integral part of its corporate culture. A vital part of the company's success rests on ensuring that people are welcome no matter where they come from, what language they speak, how old they are or what their background or training is. Nissan's top decision makers, for example, often have different citizenship from the place where the company is headquartered, as can be seen from the company's Executive Committee, which is 40% Japanese and 60% non-Japanese. To more efficiently promote Nissan's partnership with Daimler and AVTOVAZ, efforts are being made to expand the share of managerial staff in Europe who speak German or Russian.

To help employees utilize cultural differences as a source of strength, the company has designed its e-learning program as a course open to anyone at any time. In Japan, for example, this enables Japanese people to learn skills for understanding and communicating with business partners of different cultural backgrounds so that they can work together to get results. Training sessions cultivate a better understanding of specific countries with which

Nissan enjoys particularly close relations, and further efforts are underway to make cultural diversity an integral part of Nissan's corporate culture.

#### Nissan's Diversity Mindset

Nissan carries out regional diversity events and diversity training for employees around the world. All employees can learn about the company's diversity vision through the articles and other materials posted on the intranet site.

In Japan, Nissan provides e-learning programs that offer opportunities for employees to learn about diversity at any time, including a course on gender diversity to understand and draw on male/female differences, as well as seminars and an e-learning program on the inclusion of sexual minorities (lesbian, gay, bisexual and transgender individuals).

Nissan believes that embracing diversity is essential to growing as a trusted company. To instill this awareness among all managers and employees, a program called Championing Diversity was held in the United States. The program is designed to enhance workplace communication among colleagues with diverse backgrounds and viewpoints and to produce results through cooperation among multiple teams.

In Europe, a multicultural effectiveness training program was conducted to raise awareness of cultural differences and to support all employees working in a multicultural environment.

#### Work-Life Management for Employees (Japan)

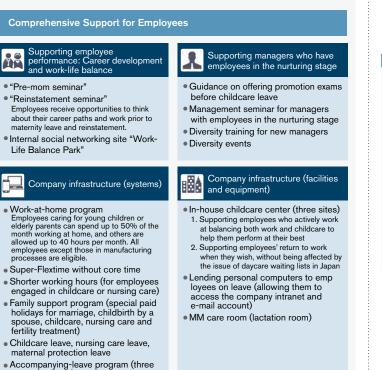
Nissan believes in the importance of enabling individual employees to both achieve personal growth and make positive contributions to the company. There has been a growing diversification in the stages of life accompanying the globalization of the business environment. To enable both men and women to apply their competence and to continue performing at their best, they require work formats allowing them to work around time constraints and to pursue productivity on an hourly basis. In 2015, Nissan introduced the Happy8 program as part of its efforts to reform how employees work. Happy8 aims to enrich both the work experience of employees and their private lives by presenting the ideal of an eight-hour work day while enhancing the quality of that time. Nissan has implemented a system offering flexible working arrangements to enable employees to effectively balance work with family responsibilities, such as childcare and nursing of elderly relatives.

Since January 2014, all employees I in Japan have been able to work at home up to 40 hours a month (equivalent to five work days) as part of the

company's work-life management policy. By working at home, they can use the time that had been spent commuting to meet childcare or nursing needs, enabling them to fulfill personal responsibilities without sacrificing working hours. This policy also enables employees without caregiving responsibilities to effectively apply their commuting time toward other uses. This policy requires close team effort and can thus lead to improved workplace productivity. More than 2,500 nonmanagerial workers have registered for this system, regarded as a pilot program for possible extension to workplaces outside Japan.

#### Creating an Environment Conducive to Work-Life Balance

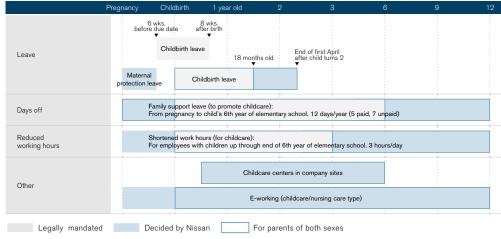
years maximum)Reemployment policy



#### Career Support Systems for Nissan Employees



#### Support Systems for Childbirth and Childcare (Japan)



#### Top-Down and Bottom-Up Approaches to Promoting Diversity

Nissan believes that both top-down and bottom-up approaches are needed to promote diversity. Diversity becomes a pervasive concept when activities spearheaded under the strong leadership of executives are combined with initiatives from the floor.

Regarding the bottom-up approach, Nissan emphasizes self-initiated opportunities for learning. Female engineers at the Nissan Technical Center (NTC) and Nissan Advanced Technology Center (NATC) in Atsugi, Kanagawa Prefecture, have launched a team effort to consider ways to balance work with life. Trials began in fiscal 2012, and full-scale activities kicked off in fiscal 2013. Participants acquire knowledge on ways to sustain their careers by sharing tips, seeking each other's advice and conducting interviews with female role models.

In the United States, employee-driven Business Synergy Teams (BSTs) have been launched with management support to leverage diversity to achieve business objectives, expand cross-functional interaction and assist with community outreach. These BSTs are operated from Nissan's North American headquarters in Franklin, Tennessee, R&D facility in Farmington Hills, Michigan, and the Dallas-based Nissan Motor Acceptance Corporation (NMAC), as well as at production facilities in Smyrna and Decherd, Tennessee, and Canton, Mississippi.

#### **Employee-Driven BSTs Enhance Work Environments**

BSTs link Nissan's diverse workforce under a common theme, and members have highly specialized knowledge. There are currently 19 BSTs across the United States, including the Women's BST (WBST), the first such group, established in 2007. This was followed by the creation of the Multicultural BST (MBST), which aims to enhance the company's customer-relations capabilities through cross-cultural communications and awareness. There are also a Generational BST and a Gay-Straight Alliance BST.

In 2013, the WBST began a program to encourage young women to consider careers in technical fields by partnering with Microsoft Corporation. It organizes "Digigirlz," a one-day event in which high-schoolaged girls participate in activities that expose them to the specific ways Nissan uses technology to create and market its innovative products. Also featured are presentations by Nissan executives who describe their careers and experiences as engineers, helping participants understand and consider an engineering career.

In 2014, health-focused BSTs were established at Nissan facilities around the United States. The Wellness Team at NMAC in Dallas, Texas, is engaged in promoting not just physical and mental health but all dimensions of well-being.

By voluntarily participating in BSTs, employees can apply what they have learned to create a more highly motivated and dynamic work environment while they contribute to Nissan's promotion of diversity.

#### Enhancing Workplace Diversity in the Americas

#### Regional diversity initiatives

Nissan North America (NNA) has established a regional diversity steering committee for the Americas to create accountability and provide guidance to diversity initiatives in the region. NNA has also established regional offices to coordinate diversity initiatives in the United States, Canada, Mexico and Brazil.

#### Mentoring program for female and minority employees

Mentoring is an important tool for raising the motivation and performance of Nissan's staff, particularly women and minorities. NNA offers mentoring in a variety of formats—closed and open, private and in small groups, and theme-based activities. The company evaluates the achievements of the program and makes improvements on an ongoing basis.

#### Supplier diversity

NNA is committed to encouraging relationships with diverse suppliers. This commitment is grounded in the definitions of minority-owned and womanowned businesses developed by the National Minority Supplier Development Council (NMSDC) and Women's Business Enterprise National Council (WBENC).

#### Diversity in the community

NNA also fosters future leaders by investing in student programs and offering students opportunities to pursue careers in science, technology, engineering and math (STEM) fields. Together with major scholarship programs for students from disadvantaged areas, NNA's diversity recruitment group works to improve internship and employment opportunities for these students.

#### **Future Issues in Promoting Diversity**

More than 10 years have passed since Nissan announced its proactive commitment to diversity. The company has placed great importance on understanding and respecting other cultures, as 80% of vehicle sales are now in markets other than Japan and as opportunities to work with partners around the globe have expanded. Women are actively working in a variety of fields at Nissan Group companies worldwide, and the share of women in managerial positions is steadily rising.

A key theme henceforth will be to enable all employees, regardless of gender or nationality, to perform at their best in a global business environment under flexible and efficient work arrangements.

Nissan will continue to vigorously pursue diversity as a corporate strategy by promoting the efforts of diverse human resources, thereby reinforcing organizational strength and maximizing business results.

#### History of and Recognition for Diversity at Nissan

Nissan established the Diversity Development Office (DDO) in Japan in 2004 to play a principal role in supporting the advancement of female employees and promoting multicultural understanding. These efforts to enhance Nissan's diversity and the value it places on a diverse workforce have not gone unnoticed.

In 2015, Nissan became the first company in Kanagawa Prefecture to

earn Platinum "Kurumin" certification, which is granted to Kuruminaccredited companies (certified as supporting childcare) that provide an even higher standard of childcare support. In 2016, moreover, Nissan earned a spot as a Nadeshiko (active utilization of women) brand for the fourth consecutive year since 2013.

These awards are a clear sign that Nissan's commitment to diversity is producing results and that the company is on the right track in making cross-cultural and gender diversity key elements of its competitive strategy.

#### Nissan's Awards for Diversity

Year	Award	Sponsor			
2016	Nadeshiko Brand (4th straight year)	METI and TSE			
2015	Incentive prize, Empowerment Award	Japan Productivity Center			
2015	Platinum Kurumin Mark	Kanagawa Labor Bureau, MHLW			
2015	Perfect Score (100) in Corporate Equality Index (2nd straight year)	Human Rights Campaign (U.S.)			
2015	Prize for excellence, 15th Tele-work Promotion Awards	Japan Telework Association			
2015	Japan's Minister of State for Special Missions Prize, Advanced Corporation Awards for the Promotion of Women	Gender Equality Bureau, Cabinet Office			
2014	DiversityInc Top 25 Noteworthy Companies for Diversity & Inclusion	DiversityInc (U.S.)			
2013	Diversity Management Selection 100	METI			
2013	Grand Prize, J-Win Diversity Awards	J-Win			
2008	Catalyst Award	Catalyst Inc. (U.S.)			





Platinum Kurumin Mark.



Advanced Corporation Awards for the Promotion of Women.

 Nissan was the recipient of other awards in the United States.

#### **CAREER DEVELOPMENT AND LEARNING OPPORTUNITIES**

Nissan believes that employees should "design their own careers" and that the company should actively assist their efforts to do so. Learning is an essential preliminary step for value creation, and a corporate culture of learning cannot exist without the desire to create value. As an organization that grows through constant learning, Nissan supports employees' personal growth through proactive human resource development.

#### **Continually Improving Human Resource Systems**

Nissan values the skills and potentials of all employees, working constantly to improve its human resource systems to achieve an organization empowering employees to reach their full potential. The evaluation-based remuneration system used to accurately gauge employee contributions is structured in a way that motivates them to set and achieve high goals. An employee's salary is determined through a combination of performance evaluations, which measure how well the employee achieved certain goals (commitments), and competency evaluations, which measure their skills, knowledge and attitude.

#### Support for Self-Designed Careers

Under a human resource management policy of offering employees opportunities for personal growth and satisfaction as long as they create value, Nissan invites employees to meet with their supervisors at least twice a year to discuss their performance and competency evaluations, as well as their career aspirations and goals.

Training programs to raise the evaluation skills of supervisors also contribute to the enhancement of career designing capabilities of employees. Specialized tools keep track of evaluation records so that even a newly instated supervisor can ascertain employee progress at a glance, maintaining consistency in human resource development. Nissan conducts surveys to gain employee input regarding the evaluation meetings and to learn their level of understanding and comfort with the system. Based on the results, the company implements measures and makes improvements if necessary. Nissan also monitors employee satisfaction regarding the meetings with their supervisors, and there has been an improvement in employee understanding and acceptance of the evaluation system. Employees in Japan also have the chance to take on the challenge of a new position through the Shift Career System (SCS) and the Open Entry System (OES). The SCS enables employees to apply for positions in other departments and work in areas that interest them regardless of whether there is a position immediately available. The OES allows them to apply for all openly advertised positions. During fiscal 2015, 158 employees applied for 102 open posts, and 54 of them succeeded in getting the positions they applied for.

#### **Offering Learning Opportunities**

Within the company, Nissan implements training programs allowing employees to gain the task-specific skills they need and giving them opportunities to extend their knowledge in fields of their choosing. These measures create a culture of constant learning at Nissan.

#### Training Programs at Global Headquarters in Japan

FY2013	FY2014	(Year) FY2015
13,078	14,007	13,597
393,370	452,631	495,779
16.6	19.4	21.9
over 4.4	over 4.2	over 4.2
70,000	71,700	74,000
	13,078 393,370 16.6 over 4.4	13,078         14,007           393,370         452,631           16.6         19.4           over 4.4         over 4.2

#### Nissan Learning Center

The Nissan Learning Center is a specialized training institute established to offer employees high-quality and timely skill-development opportunities. The center provides training for middle-management and staff-level human resources based on the Nissan Way and structured around the four pillars of "enhancing familiarity with the Nissan Way," "improving management skills," "improving business skills" and "improving technical skills." The center also operates Monozukuri University to enhance the skills of Nissan's core manufacturing-related human resources.

#### Monozukuri University

The auto industry today is marked by the rapid pace of innovation and increasing technological sophistication. To maintain and develop Nissan's

*monozukuri* tradition of careful craftsmanship that underpins the company's internationally competitive product manufacturing, individuals are needed who have an understanding of the latest technologies that go into building an automobile and a well-rounded personality with outstanding management skills. Monozukuri University was set up within the Nissan Learning Center to develop capable leaders who can pass down Nissan's technologies and skills to future generations. It offers a variety of programs aimed at developing engineers and technicians who carry forward the "Nissan DNA" and achieve continued success through the implementation of the Nissan Way. The "university" comprises Nissan Technical College, Genba Kanri (shop floor management) School and Engineering School.

#### Engineering and Technical Skill Education Around the World

To support Nissan's efforts to expand its business globally, the company must improve the engineering skills of individual employees working across the globe. The company offers opportunities for personal growth equally to all employees in both R&D and manufacturing, whether they work in Japan or elsewhere, to help them enhance their capabilities.

#### Education for Engineers

Nissan developed a global training program to be administered to its 19,000 engineers at development centers worldwide and completed basic training of all engineers from 2012 through 2015. The next step will be advanced training covering more specialized content.

#### Education for Technicians

To swiftly foster manufacturing division supervisors, who will be needed across the globe, Nissan is developing a framework for training prospective supervisors by integrating the supervisor education given at the company into the stratified training system for local technicians. Modeled after the example of Dongfeng Motor Company Ltd. (DFL) in China, Nissan's largest and rapidly growing market, the scheme will be expanded globally.

#### Improving Management Quality

Nissan is working to improve the quality of its management in order to fulfill the goals of its mid-term business plan, Nissan Power 88, ■ and achieve sustainable growth. In Japan, the company has established a training framework for mid-level managers. This gives them opportunities to promote

activities that put the Nissan Way into practice and to extend their skills in managing people and business operations.

Specifically, Nissan engages in (1) cultural diversity training to promote understanding of the actions and mindsets described in the Nissan Way; (2) training in business skills, leadership and liberal arts to nurture professionals; and (3) training in on-site management to teach the importance of the production site and to achieve maximum results through collaboration. These three core components of the training framework are supplemented with additional programs.

In North America and Europe, meanwhile, the Nissan Way Leadership Academy program for managers examines how the Nissan Way has been put to use most effectively and shares those actions as part of training tools to elevate management quality overall.

#### **Training Future Leaders**

To continually foster future managers and specialists who will lead the company, Nissan implements a strategic and systematic approach to training, job rotations and recruitment.

Specifically, Nissan engages in leadership training aimed at passing down the knowledge and experience to the next generations of workers. These programs are offered at various development stages, including those for young employees, regional middle managers and Group senior managers. Training consists of group sessions for intensive training in business skills, action-based sessions where participants tackle issues actually facing Nissan and cultural diversity classes to promote understanding of the issues.

A number of rotational programs are strategically and systematically implemented to give promising employees the experience needed to serve in management posts and direct global functions as capable managers and leaders.

Nissan is reinforcing its human resources not only through the recruitment of new graduates but also by actively hiring outstanding midlevel management candidates.

These talent management schemes are effectively operated through regular human resource meetings among senior managers. In these meetings, outstanding human resources are identified, then development plans and succession plans are made. Nissan's strategic talent management system is globally coordinated and active at the global, regional and functional levels.

Power 88.

#### Fostering Specialized Skills

Helping employees develop specialized skills over the medium to long term is vital for a company to achieve sustainable growth. The Nissan Expert Leader System is a means of strengthening and fostering further development of specialized skills in a wide range of technical and nontechnical areas like purchasing and accounting. In fiscal 2015, the system's 10th year, Nissan designated 45 employees as Expert Leaders and 1 management-level employees as Nissan Fellows in a total of 97 fields of specialization. The Expert Leaders and Fellows make use of their specialized knowledge to contribute to Nissan's business endeavors overall. In addition to sharing their knowledge with others via the corporate intranet and other communication tools, they contribute to the fostering of the next generation of experts by passing on their specialized skills in seminars and training courses.

#### **BUILDING SAFE WORKPLACES**

Nissan promotes practices aimed at reducing worker burdens and improving productivity. Promotion of employee health is a top priority and has been established as a key tenet in Nissan's companywide declaration on workplace safety.

#### **Employee Safety and Health Management**

Nissan has adopted a Basic Policy on Safety and Health so that all employees can focus on their work in a safe environment. It gives top priority to worker safety as well as their well-being as a matter of company policy. The work environment relating to employee safety and health is managed uniformly according to the Basic Policy at all Nissan sites, both in Japan and globally.

In Japan, Nissan holds a Central Safety and Health Committee meeting each year chaired by the executive in charge and attended by management and labor union representatives from Nissan facilities. Activities over the past year are reviewed in such areas as workplace safety, fire prevention, mental health, health management and traffic safety, and then plans are laid out for the following year. Each facility holds a Safety and Health Committee meeting each month, attended by labor union representatives. A safety and health officer is assigned at each workplace to ensure that all employees receive relevant information. Globally, each facility applies the PDCA cycle. A teleconference is held twice a year linking all Nissan facilities worldwide to share information and discuss key issues. Regional managers for employee safety and health also meet every other year for a Global Safety Meeting. In the event of an accident, details and responses are shared globally in an effort to fully prevent their recurrence.

Many facilities both in Japan and globally have introduced the OHSAS 18001 • occupational safety and health standard, creating a structure for the steady implementation of employee safety and health activities.

#### A Uniform Set of Global Safety Standards

To allow all employees to maximize their performance, Nissan designs workplaces with employee safety and health in mind.

The company works proactively at all levels to identify potential issues or concerns in the workplace environment, develops measures to address them and makes it easier for employees to get their jobs done. In 2010, Nissan standardized the safety indices that previously differed among its global sites. Safety performance is monitored quarterly for each production site.

#### Improved Production-Line Environments

Nissan seeks to fulfill the company's mission of engaging in "human-friendly production" by continuously improving the workplace environments of its manufacturing facilities worldwide. Nissan has installed internal cold-air ducts and ensured there are set breaks to drink water, particularly in locations with considerable workloads. This is part of constant improvements to allow employees to work in a comfortable environment.

#### Creating Safe Workplaces

Nissan employs its own safety management diagnostic methods, as well as a risk-assessment approach to workplace management, to help reduce hazards in the work environment and prevent accidents.

Two tools developed internally by Nissan to identify the potential for a work accident are the Safety Evaluation System (SES) and the Fire-Prevention Evaluation System (F-PES). They call for workplace patrols in accordance with established evaluation standards to identify potential dangers and fire risks to help reduce incidents. The use of these tools has been effective in achieving these aims.

Global initiatives to avoid accidents and create a safe workplace

include inviting employees from Nissan facilities around the world to undergo training on workplace safety. Responsible managers and leaders also received training in SES and F-PES in preparation for the implementation of these programs at all Nissan facilities worldwide, a process that began in fiscal 2014 and was completed in fiscal 2015.

Since 2011 Nissan has been systematically carrying out risk-prediction training at plants in Japan to ensure that individual workers are aware of the risk of accidents and to help prevent accidents. This training, which was continued in fiscal 2015, cultivates appreciation of danger among workers, thus reducing their risk of work accidents. Nissan is endeavoring to increase this method's effectiveness through repeated application.

#### Global Occupational Accident Trends

Total lost-time injury cases ÷ total

million

million

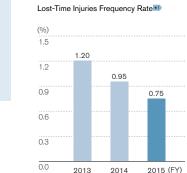
★2 Total lost-time

working hours × 1

ergonomics-related

injury cases ÷ total

working hours × 1



Lost-Time Ergonomics-Related Injuries Rate\* (%) 3.0 2.5 2.0 1.51 1.5 0.78 1.0 0.73 0.5 0.0 2013 2014 2015 (FY)

#### **Specialized Mental Healthcare**

Nissan has put together a specialized team led by a mental health professional to care for the mental well-being of employees. In 2005, in cooperation with external mental healthcare specialists, the company introduced the Employee Assistance Program (EAP), a mental healthcare program providing employees with consistent care covering everything from prevention and early diagnosis to treatment and recovery. Since fiscal 2007 the program has expanded to include production-line workers, giving employees and their family members access to mental-health professionals for consultations, diagnosis and counseling. Nissan also offers specialized care programs that respect employee privacy, such as the yearly "Stress Check," through which employees receive advice from a doctor via e-mail or letter. In fiscal 2011 the company's mental health training was extended to cover items bolstering the mental health of individual employees. Nissan promotes mental healthcare through a wide range of approaches.

#### **Rehabilitation Center to Facilitate Return to Work**

Appropriate support mechanisms are required to facilitate an employee's return to work in case of long-term or recurrent absence due to a mental or physical ailment. Nissan's support in this area includes rules established in 2008 for the use of external rehabilitation centers to ease employees' return to the workforce following long-term or recurrent absence. An in-house rehabilitation facility opened in 2012. By offering various programs suited to the needs of the respective workplaces, Nissan is seeing improvements in the return-to-work ratio.

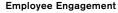
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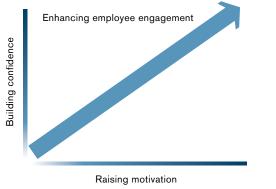
#### DIALOGUE WITH EMPLOYEES

For both Nissan and its employees to continue to grow in the face of globally expanding corporate activities, employees need to understand the direction in which the company is moving and implement their own actions toward the achievement of business objectives. Overcoming challenges to achieve those goals can lead to personal growth for the employee and contribute to the realization of the company's vision. Nissan is strengthening its communication with employees so they will feel united with the company and be more engaged in tackling the challenges before them.

### Strengthening Communication to Raise Motivation and Build Confidence

In order to achieve the Nissan Power 88 mid-term business plan's objectives, all employees need to embrace Nissan's corporate vision and understand the significance of the plan. To succeed, employees' pride in the company's achievements and trust in the sustainability of its corporate activities are essential. At the same time, employee motivation needs to be enhanced to encourage them to take self-initiated action. Internal communication activities are focused on building confidence among employees and increasing their motivation.





#### **Enhancing Communication Channels**

Building confidence between a company and its employees is based on the trust established through transparency of communication. Nissan discloses its statement of accounts and other business results to employees in a timely manner. Joint Renault-Nissan Alliance teams are organized in R&D, production engineering, supply-chain management, purchasing and human resources to deliver additional synergies. Information about the Alliance is shared with employees, enabling them to understand the goals and benefits derived from the Alliance.

A deeper understanding of Nissan products, services and technologies is gained through timely communications that engage employee interest and boost their motivation. Employees are regularly updated on Nissan's leadership in achieving a zero-emission society, development of Autonomous Drive vehicles and other long-term projects.

Nissan is enhancing coordination among its various departments and with senior management and actively sharing information that contributes to relationships of mutual trust and higher employee motivation.

Every new fiscal year starts with the CEO delivering the state of the company address, reflecting on the past year's performance and highlighting the direction for the new year. These are specific communication events that help build relationships of trust between the employee and the company. Leadership Exchange meetings, where the CEO and other Executive Committee members examine important issues with middle and senior managers, are held twice a year. The issues discussed are then shared and cascaded within each department. On a monthly basis, topics based on employee interest are also broadcasted through live web conferences called Management Information Exchanges (MIE), which encourage engagement between Executive Committee members and managers.

Employee motivation is also raised through new model announcements and test drive events, where employees gain a deeper understanding of Nissan's products and learn to convey product features and attractiveness to their friends and families more effectively. These have been well received, with some participants stating that their enhanced knowledge of Nissan products has boosted their pride in the company and their work motivation, and have been highly effective in creating "brand ambassadors" for Nissan. In fiscal 2015, the Nissan Festival, held at Nissan Global Headquarters, was another motivation-boosting program. The Nissan Festival proposes diverse exhibitions and hands-on programs around the three themes of "cars," "technology" and "the company and its people." Its aim is to promote understanding of Nissan and to help people develop empathy with the company through learning workshops and direct experience of Nissan's products and technologies. Some 3,000 people participated, including employees as well as their families and friends. About 30 employees were involved in planning the event as members of the organization committee.

Nissan's internal communication tools also help build relationships of confidence and boost employee motivation. Since Nissan introduced a corporate intranet system called WIN (Workforce Integration @ Nissan), it has been actively used to promote communication, information sharing and collaboration among employees. The WIN network now goes beyond Nissan Group companies to include Nissan's major business partners, helping communicate information that raises motivation on a global basis. A printed in-house newsletter called *Nissan News* is published monthly for employees at Nissan production sites so they may access needed information with no time lag.



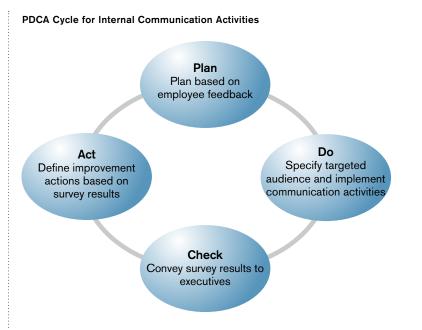
Scenes from the Nissan Festival

#### **Engagement Kits that Generate Communication**

In fiscal 2014, Nissan began issuing Engagement Kits that summarize Nissan's global operations, business performance and major achievements. These kits are distributed to managers every month and are used as communication tools for information sharing. The managers not only are the recipients of information but also are assigned responsibility for disseminating it in their respective departments. This is intended to promote workplace communication, deepen employee understanding and raise motivation.

#### **Employee-Executive Exchange**

Deepening mutual understanding and confidence requires opportunities for employees to voice their views and to share them with company executives. Nissan is making efforts to communicate information that will lead to greater employee confidence toward the achievement of the Nissan Power 88 mid-term business objectives. These efforts are monitored on an ongoing basis through key performance indicators (KPIs) and reflected in internal communication activities. The company conducts regular surveys regarding these communication initiatives and the results are then conveyed to company executives. The survey results are also used to run a PDCA (plan, do, check, act) cycle, with plans implemented based on decisions on whom to target and what type of additional information to communicate.



## **ECONOMIC CONTRIBUTION**

Nissan has been adapting to the fast-changing consumer landscape. The global economy is undergoing a dramatic shift as emerging economies take on an increasingly significant role in economic growth. Countries around the world are seeing rapid urbanization, creating demand for improved infrastructure and increasing the need for enhanced mobility solutions. As a global automaker, Nissan aims to provide mobility for all and to develop a sustainable mobility society. In working toward these goals, the company expands its business geographically so as to provide its products in global markets. It is also globalizing all stages of its value chain, from the development and procurement of parts and materials to manufacturing, logistics and sales.

Nissan believes expansion should be accompanied by sustainable, profitable growth benefiting both the company and contributing to the economic development of society as a whole through the creation of jobs and regional development. This principle is behind the implementation of Nissan's mid-term business plan, Nissan Power 88, which aims to sustainably maximize the company's economic value as a corporation. Through the corporate vision of Enriching People's Lives, Nissan is pursuing technological innovation and creating value in wider society by establishing new markets, such as those for zero-emission vehicles, and by operating in a transparent manner through open disclosure of its performance to stakeholders.

Nissan automobile production sites (as of end of March 2016) located in:



#### **NISSAN'S ACTIONS**

#### **ECONOMIC CONTRIBUTION**

#### SCORECARD

#### FY2015 TARGET ACHIEVEMENT RATE: VV ACHIEVED V MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results 💌	Assessment	Action Planned for Next Year Onward 💌	Long-Term Vision
Acceleration of profitable corporate growth	Implementation and promotion of Nissan Power 88: achieve 8% operating profit margin, 8% global market share by end of FY2016	Consolidated operating profit margin (consolidated companies; for joint ventures in China, calculated on a proportionally consolidated basis)	5.8%	7.0%	<b>44</b>	FY2016 Outlook 6.6%	Target sustainable, profitable growth
		Global market share	6.2%	6.2%	~~	FY2016 Outlook 6.3%	and continue providing value to all stakeholders over the long term

Announced May 2016.



#### NISSAN'S APPROACH TO ECONOMIC CONTRIBUTION

▶ website

 Click here for more information on Nissan Power 88. Through its business activities, Nissan aims to create value and contribute to the development of a sustainable society. To achieve these goals, the company launched its mid-term business plan, Nissan Power 88, which established a clear, global vision and strategic directions through fiscal 2016. The company continues to implement the plan's strategies and initiatives to maximize its corporate value.

#### COMPANY ORGANIZATION FOR ECONOMIC CONTRIBUTION

The Nissan Group consists of Nissan Motor Co., Ltd., subsidiaries, affiliates and other associated companies. Its activities comprise the manufacture and sales of vehicles and related parts in its automotive business. The Group also provides financing services to support its sales activities.

Nissan's Global Headquarters makes decisions about the allocation of resources to each business and manages operations of the entire Group. The Group has six regional management committees responsible for activities in Japan, Asia and Oceania; China; North America; Latin America and the Caribbean; Europe; and Africa, the Middle East and India, respectively. These regional structures are integrated with cross-regional functional departments covering activities including research and development, purchasing and manufacturing.

### ACCELERATING SUSTAINABLE AND PROFITABLE CORPORATE GROWTH

Nissan plays a leading role in the global automotive industry, making a significant contribution to its development. The company is committed to optimizing mobility for people around the world and helping to address a broad range of issues toward its goal of realizing a sustainable mobility society, while creating and delivering additional value through innovation. Sustained, profitable corporate growth is vital to achieving these goals, with the midterm business plan Nissan Power 88 actively targeting the acceleration of corporate growth. By fully exploiting its capabilities as a global company, Nissan aims to create jobs and other value for society as a whole. At the same time, the company continues to invest in strategic initiatives and key markets to ensure future sustainable growth.

#### Strategic Investment in Focus Areas and Markets

To accelerate its growth in global markets, the company must expand its business and provide relevant products that satisfy the demands of customers. To achieve this, Nissan is creating a more robust base for production on a global scale and enhancing the careful *monozukuri* craftsmanship for which it is known.

Datsun has returned to the Group as its third brand alongside Nissan and Infiniti. The Datsun brand aims to enable customers in high growth markets to access the benefits of car-ownership. In March 2014 the Datsun GO hit the market in India, followed later in the year by the Datsun GO+, which offers wider choice and more versatility. The Datsun GO+ Panca, a multipurpose vehicle, and Datsun GO Panca hatchback, launched in Indonesia, are manufactured locally at a new plant in Purwakarta, West Java Province. In Russia, the Group launched the four-door, five-passenger Datsun on-DO sedan and Datsun mi-DO hatchback, designed for the Russian market. Manufacturing is being handled by AVTOVAZ, a partner to the Renault-Nissan Alliance, at its Togliatti Plant. And in South Africa, the fourth market for the Datsun brand, the Datsun GO was launched in October 2014. These rapidly growing markets have embraced the Datsun philosophy of offering something new, exciting and innovative, and in 2015 cumulative sales in the four countries topped 100,000.

The Renault-Nissan Alliance and Daimler AG are working together on the production of a 2.0-liter, 4-cylinder engine for the Infiniti Q50 and the Mercedes-Benz C-Class line at Nissan's Decherd Plant in Tennessee, which has an annual capacity of 250,000 engines at peak output. Also in cooperation with Daimler AG, in September 2015 the company began construction of a new plant in Aguascalientes, Mexico, which will produce next-generation premium compact cars for both the Mercedes-Benz and Infiniti brands. Now being built near Nissan's second Aguascalientes Plant, the new plant will have an estimated initial annual capacity of more than 230,000 vehicles and is expected to create some 3,600 direct jobs by 2020. The Infiniti model is scheduled to start production in 2017 and the Mercedes-Benz model in 2018. Thanks to an expansion of the Mexican supplier base,

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the plant will also feature a high localization ratio.

In the Chinese market, which continues to show growing demand for luxury vehicles, Nissan has advanced its strategic partnership with Dongfeng Motor Company Ltd. The formal launch of Dongfeng Infiniti Motor Co., Ltd., enables both companies to benefit from this fast growing segment. Dongfeng Infiniti will independently operate the Infiniti brand under the principles of "One Strategy, One Brand, One Team, One Channel." The Infiniti Q50L has already gone on sale as the first vehicle to be locally produced in China, at the Xiangyang Plant in Hubei Province. This plant has expanded its annual production capacity to 250,000 vehicles, of which 60,000 will be Infiniti models. This plant in China is the third global production base for Infiniti, along with the Infiniti manufacturing centers in Japan and the United States. In China the brand will continue to enhance its product lineup as it pursues further growth in the Chinese market.

#### Targeting New Value and Competitiveness Through IT

In May 2015, the Tokyo Stock Exchange (TSE) named Nissan a "Competitive IT Strategy Company" on a list of TSE First Section companies recognized for their efforts to make active use of IT to deliver greater profits and business innovation. The designation was established in fiscal 2014 as part of joint efforts between the TSE and the Ministry of Economy, Trade and Industry to promote strategic use of IT among Japanese companies. This was the first Competitive IT Strategy Company list.

Leading companies around the world use IT to actively drive development of products and services and create new value through business-model reforms, thereby strengthening competitiveness. The designation aims to introduce corporations with a strategic IT approach to investors and others, while simultaneously encouraging a profound shift in how senior managers view the importance of IT.

The TSE praised Nissan for linking its management strategies with the construction of solutions based on its global IT strategy VITESSE, which targets fast and efficient creation of business value through information technology. The acronym derives from "value innovation," "technology simplification" and "service excellence."



SHAREHOLDER AND INVESTOR ENGAGEMENT

#### **Communication with Shareholders and Investors**

To communicate with shareholders and investors, the company's IR team holds quarterly results briefings, meets frequently with institutional investors and sell-side analysts and responds to inquiries in a timely manner. Nissan also proactively discloses information on its operations through business briefings and participation in conferences and company briefings for individual investors hosted by securities companies. The latest information is also available on the IR website.

Nissan's shareholders and investors are partners in the creation of

a more sustainable society. To facilitate a deeper understanding of

the company, Nissan has an active IR program that provides

Each year Nissan holds events to present its business activities to investors and analysts, focusing on themes most relevant to them and making available the company's divisional and regional managers to actively provide the required information. In fiscal 2015, presentations covered the Infiniti business and powertrain technology trends and strategies. Nissan takes advantage of a broad range of opportunities to disclose information on the long-term vision behind its strategies, the innovations it is introducing to boost competitiveness, and the latest market trends.

The company will continue to disclose information appropriately to meet the needs of stakeholders and investors, thereby increasing understanding of its business.

#### 116th Shareholders Meeting

The 116th Ordinary General Meeting of Shareholders was held at the Pacifico Yokohama on June 23, 2015, and was attended by 1,711 shareholders. After the meeting all board members and corporate officers, including CEO Carlos Ghosn, attended an informal gathering to interact directly with shareholders.

The General Meeting of Shareholders is an opportunity for the executive team and the company's owners to communicate directly. Nissan aims to develop trust at these meetings and related events, paying full attention to shareholders' opinions and offering careful explanations to enhance their understanding.



Beginning in 2009, the company has collected questions and opinions from shareholders before the General Meeting and worked to provide appropriate explanations, reports and responses.

Since 2008, events at the Oppama Plant in Kanagawa Prefecture have offered the chance to experience Nissan technologies firsthand through observation of plant production lines, test drives and other activities. Participants can also spend time with company executives, allowing for a lively exchange of views. On June 20, 2015, prior to the General Meeting, 200 shareholders were selected by lottery to experience Nissan's automotive technology at the Oppama Plant. This exchange with shareholders provides valuable information for the General Meeting that follows.

#### Positive External Assessment for IR Activities

➤ website
Detailed IR information is available on our website.

At the 21st Awards for Excellence in Corporate Disclosure presented by the Securities Analysts Association of Japan, Nissan ranked third in the automobiles, auto parts and tires category. Winners of these awards, established with the goal of improving corporate disclosure, are selected through assessment by analysts in five categories: company management's IR engagement, briefings, fair disclosure, corporate governance and voluntary disclosure. The analysts recognized Nissan for its fair disclosure, such as its executive management's proactive participation in investor relations, for its question-and-answer sessions at informational meetings and for its corporate governance.

# CORPORATE GOVERNANCE & INTERNAL CONTROL

To be a sustainable company, Nissan must display a high level of ethics and transparency, as well as a strong foundation for the organization. Nissan has extensive global operations with numerous stakeholders around the world. It is essential to continue earning their trust and ensure the high ethical standards and compliance of all employees. Nissan has also established a corporate governance system that maintains business transparency. The system allows Nissan to implement various monitoring systems, as well as assess and effectively manage risks that have the potential of preventing the company from achieving its business goals. In addition to carrying out cooperation among sites in the regions in which it operates, Nissan has set up global management systems and provides relevant training programs to its employees and business partners.

**NISSAN'S ACTIONS** 

Employees in Japan receiving Nissan Global Anti-Bribery Policy training in fiscal 2015:

98.8%

#### **CORPORATE GOVERNANCE & INTERNAL CONTROL**

#### SCORECARD

#### FY2015 TARGET ACHIEVEMENT RATE: √√ ACHIEVED √ MOSTLY ACHIEVED × NOT ACHIEVED

Nissan makes year-round use of the CSR scorecard as a fundamental tool to manage, review and validate its progress in each of the sustainability strategies defined for its CSR activities. The table below shows some of the values behind Nissan's ongoing activities and the indices used in the scorecard to gauge the company's performance.

Nissan Priorities	Nissan Objectives	Indicators of Progress	FY2014 Results	FY2015 Results	Assessment	Action Planned for Next Year Onward	Long-Term Vision
Compliance	A fully functioning framework for the prevention of conduct violations and compliance at all Nissan companies	Holding of Global Compliance Committee meetings     Implementation of global compliance plan and policies as necessary	<ul> <li>Held Global Compliance Committee meetings in May and December</li> <li>Decided new governance measures for Global Compliance Committee to accompany reform of management system</li> <li>Published local guidelines related to global compliance on each region's intranet</li> <li>Began General Awareness training covering anti-bribery measures and export management in the Americas; later to be conducted in other regions</li> </ul>	<ul> <li>Held Global Compliance Committee meetings in May, December and March</li> <li>Established a Global Compliance Office</li> <li>Expanded the externally hosted Nissan Compliance Hotline in two additional regions</li> <li>Implemented a compliance case escalation process</li> </ul>	~~	Globally launch and integrate externally hosted Nissan Compliance Hotline system     Establish a Global Ethics Training Program     Establish a Global Compliance Policy     Establish one-on-one Tone at the Top training program for executives     Launch a Global Awareness Campaign on Safeguarding Confidential Information and Insider Trading	Move beyond compliance to a place where we do not think about how to simply conform, but how we can do more
Risk management	Implement PDCA cycle annually and ensure that risk management is functioning properly	Implementation level in the following areas based on the risk-management process • Assessment of corporate risks and revision of risk map • Reports and proposals to management • Disclosure of risk-management activities to stakeholders • Oversight of risk-management activities and regular reports to Board of Directors	<ul> <li>Identified fiscal 2014 corporate risk factors and owners of those risks at meeting of the Executive-Level Committees; managed each risk under lead of risk owners</li> <li>Submitted interim and year-end reports on level of implementation of activities to the Board of Directors; acknowledged that the risk management PDCA cycle was mostly functioning properly</li> <li>Updated "Business and other risks" in financial information (Yukashoken-Hokokusho) and "The current state of Nissan's risk management" in Sustainability Report</li> <li>Held meetings with Japanese affiliated companies twice a year; shared information and exchanged opinions with North American, European, Australian and Brazilian sites and Renault representatives</li> </ul>	<ul> <li>Conducted risk survey according to annual process</li> <li>Proposed candidates of FY15 corporate risks and owners to the Corporate Risk Management Committee</li> <li>Managed each risk under lead of risk owners</li> <li>Submitted interim and year-end reports on level of implementation of activities to the Internal Control Committee and the Board of Directors; acknowledged that the risk management PDCA cycle was mostly functioning properly</li> <li>Updated "Business and other risks" in financial information (<i>Yukashoken-Hokokusho</i>) and "The current state of Nissan's risk management" in Sustainability Report</li> <li>Held meetings to share information and to exchange opinions with Japanese affiliates twice a year; with overseas affiliates &amp; Renault once a year</li> </ul>	~~	<ul> <li>Identify corporate risk for fiscal year at start of each fiscal year and make proposals at Executive-Level Committees</li> <li>Continue to report regularly to the Board of Directors</li> <li>Update information disclosed to increase Nissan's risk management reputation</li> <li>Continue to regularly share information and exchange opinions with domestic and overseas affiliated companies to maintain cooperation on risk management within the Group</li> </ul>	Contribute to raising corporate value with a global risk-management system; obtain better external understanding through appropriate information disclosure
	Meeting of KPIs for maintenance and enhancement of information security, prevention of information leaks, damage limitation and maintenance of transparency in the event of leaks	Degree of implementation in the following areas based on the Information Security Policy • Holding of Information Security Committee meetings • Implementation of annual training • Management of incidents • Management of information assets • Assessment of information security	<ul> <li>Strengthened cooperation with Renault for each activity</li> <li>Strengthened Information Security Committee management</li> <li>Implemented annual training and revised content reflecting identified needs</li> <li>Quickly identified internal incidents and implemented corrective actions to prevent recurrence</li> <li>Continually improved management of information assets and strengthened asset identification and tracking process</li> <li>Assessed information security and revised assessment indicators</li> <li>Made improvements to ensure that incidents similar to recent server attacks and internal violations at other companies and organizations do not occur at Nissan</li> </ul>	Strengthened cooperation with Renault for each activity • Strengthened Information Security Committee management • Implemented annual training and revised content reflecting identified needs • Quickly identified internal incidents and implemented corrective actions to prevent recurrence • Continually improved management of information assets and strengthened asset identification and tracking process • Assessed information security and revised assessment indicators • Made improvements to ensure that incidents similar to recent server attacks and internal violations at other companies and organizations do not occur at Nissan	~	Target further strengthening of cooperation with Renault     Strengthen policies worldwide in countries and Group companies where improvement is needed     Continue to strengthen policies to prevent such incidents as server attacks and internal violations	Contribute to pursuing stable corporate activities and social responsibility by globally implementing PDCA cycles on information security

### NISSAN'S APPROACH TO CORPORATE GOVERNANCE & INTERNAL CONTROL

Governance systems, compliance and risk management are key factors in Nissan's business management. The company's global approach to corporate governance is founded on three pillars: Construction of a system in which management responsibility is clear and transparent; compliance built on the high ethical standards of all employees; and an effective and appropriate risk-management system.

#### CORPORATE GOVERNANCE SYSTEM

Nissan believes that enhancing corporate governance is one of its most important business issues. Ensuring clear management responsibility is a key way to achieve this. Nissan announces clear management targets and policies to all stakeholders and discloses its performance promptly with a high degree of transparency. In addition to this dedication to clear targets, management shares the message, set strongly at the top levels of the company, that the only way to achieve sustainable results is through complete transparency and a process of learning from mistakes.

#### Corporate Governance System in Detail

To increase management transparency and flexibility, Nissan uses a corporate structure with supervision by the Board of Directors • and auditing by the Statutory Auditors. The company has also adopted a corporate officer system. This clarifies the structure for taking responsibility and ensures appropriate supervision and auditing of activities by the directors. The Board of Directors includes outside directors and makes key decisions on important company operations, as well as supervising individual directors' execution of duties.

Nissan's Board of Directors is compact, enabling effective and flexible management, with authority regarding operations clearly entrusted to corporate officers and employees. Additionally, Nissan has established focus committees whose chairs are responsible for carrying out discussions on important company matters and daily operations.

#### Internal Control Systems

Nissan places high value on transparency in its corporate management, both internally and externally. The company focuses on consistent and efficient management to achieve clear commitments. In line with this principle, and in accordance with Japan's Companies Act and its related regulations, the Board of Directors has decided on Internal Control Systems to pursue these goals and its own basic policy. The board continually monitors the status of implementation regarding these systems and the policy, making adjustments and improvements if necessary. One board member is assigned to oversee the Internal Control Systems as a whole.

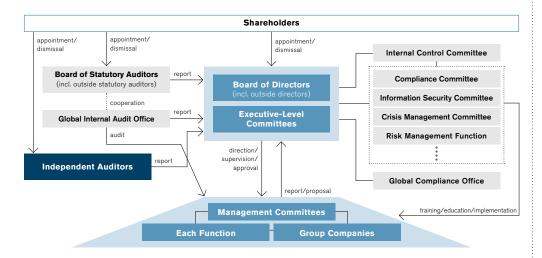
Nissan has adopted a system under which the Board of Statutory Auditors oversees the Board of Directors. The Statutory Auditors attend board and other key meetings, and also carry out interviews with board members to audit their activities. The Statutory Auditors regularly receive reports on the results of inspections, as well as plans for future audits, from independent accounting auditors and exchange information to confirm these reports. The Statutory Auditors also receive regular reports from the Global Compliance Office and the Global Internal Audit Office, making use of this information for their own audits.

#### Independent Internal Audits

Nissan has established a global internal audit unit, an independent department to handle internal auditing tasks. Under the control of the Chief Internal Audit Officer, audit teams set up in each region carry out efficient, effective auditing of Nissan's activities on a groupwide and global basis.

 website
 Click here for more information on the Board of Directors.

#### Nissan's Internal Governance System (As of March 2016)



#### COMPLIANCE

In promoting corporate social responsibility (CSR), it is essential that each employee does his or her job in a compliant manner and with high ethical standards. To raise compliance awareness throughout the company, Nissan has established a Global Compliance Office, as well as specialized departments, and has appointed officers to promote compliance in each region where it operates.

#### **Employees and Compliance**

The foundation of Nissan's CSR promotion is based on each employee's ability to do his or her job with a high level of integrity. In 2001, the company produced the Nissan Global Code of Conduct, 
outlining a set of guidelines for employees to put into practice. Today this Code of Conduct is applied at all Nissan Group companies worldwide.

#### ▶ page\_105

 Click here for more information on the Nissan Global Code of Conduct.

Nissan has also produced guidance for directors and corporate officers regarding compliance, holding regular seminars and educational activities to ensure strict adherence to the rules. Under the oversight of its Global Compliance Committee, the company has established regional compliance committees in each region where it operates to form a system for detecting and deterring illegal and unethical behavior. Nissan is working with all regions and bases of operation to ensure full awareness of compliance issues and to engage in prevention of illegal activities. Nissan deals severely with employees who violate or infringe on the Global Code of Conduct or the law. In fiscal 2015, Nissan established a Global Compliance Office to ensure more rigorous compliance management. 103

#### FY2015 Global Compliance Committee Organization (As of March 2016)



 Each Regional Compliance Committee oversees various local compliance committees as appropriate.

#### Security-Related Export Controls

To help maintain both national and international peace and security, Nissan thoroughly complies with export control laws and regulations in Japan and other countries and regions where it operates to prevent sensitive goods and technologies from reaching sponsors of terrorism, as well as corporate espionage or human rights violations. In line with these rules, Nissan implements export controls under an independent system headed by its representative executive. Specifically, working together with business owners, the Export Control Global Secretariat sets control and monitoring mechanisms to ensure compliance with security-related export controls. The company strictly applies this process to its operations.

With the overall aim of improving the level of internal control, Nissan strives to conduct regular risk assessment activities in connection with export controls in each region, to create monitoring mechanisms that are in step with regulatory requirements and business demands, and to continually improve its operations. The company has also continued to actively engage employees in understanding export control issues through sustained training efforts. Specialized training for the R&D function, carried out in Japan, is also offered in the United States and China; in Spain and Russia, meanwhile, a consistent educational program is carried out across the

#### Renault-Nissan Alliance.

Overall, the Secretariat has increased knowledge globally and demonstrated that compliance can help minimize risk and facilitate trade. More specifically, the Secretariat supports global sales initiatives in large exporting Nissan entities with relevant controls and proactively provides regulatory advice on new Nissan technology, such as Autonomous Drive, in-car connectivity and EVs, so as not to hinder their development.

#### Global Export Control Policy Framework



#### **Promoting Thorough Compliance**

Nissan has established a Global Code of Conduct and has set up a Global Compliance Office as well as departments and officers at each of its operations worldwide to take responsibility in promoting compliance measures.

To ensure full understanding of the code, employees in Japan take e-learning or video training courses based on the Japanese version of the Nissan Code of Conduct—"Our Promises," drawn up in 2004 and revised every three years since (most recently in October 2013)—after which they sign an agreement to abide by it. In this way, Nissan seeks to ensure acrossthe-board understanding, making sure all employees are fully aware of Nissan's policies and have the ability to act appropriately when faced with compliance issues. A number of education programs to promote compliance are held regularly for employees in the regions in which Nissan operates. Moreover, all Group-affiliated companies have introduced their own codes based on the Nissan Global Code of Conduct. Nissan institutes global training to foster employee respect for compliance measures and the Code of Conduct. The company communicates compliance measures to all of its employees in Japan. By fiscal 2015, 98.8% of these employees have undergone training on the Nissan Global Anti-Bribery Policy. ■

#### ▶ website

Click here for more information on the Nissan Global Anti-Bribery Policy. Nissan has created a series of internal regulations that are applied globally, covering areas such as insider trading, personal information management, information security, bribery and corruption and use of social media. With these policies in place, Nissan is working to heighten awareness and reduce infractions. **Global Code of Conduct for Nissan Group** 

#### Principle

The following standards apply to all employees in Nissan Group companies (collectively herein referred to as "Nissan" or "Company"). Each member of the Company is charged with responsibility to uphold and extend this Code of Conduct.

#### **Global Code of Conduct**

#### ① Comply with All Laws and Rules

Nissan employees will abide by all laws of the country, and all regulations of the Company, in which they work.

#### 2 Avoid Conflict of Interest

The best interests of Nissan are expected to be foremost in the minds of employees. It is prohibited to behave, act or use information in a way conflicting with Company interests.

#### **③** Preserve Company Assets

Nissan employees are personally accountable for preserving and safeguarding Company assets. Unauthorized use or diversion of Company assets, including funds, information and intellectual property, is prohibited.

#### 4 Be Impartial and Fair

Nissan employees must maintain impartial and fair relationships with business partners, including dealers, parts suppliers and other third parties.

#### **(5) Be Transparent and Accountable**

Nissan employees shall make fair, transparent, timely and appropriate disclosure of the Company's business activities to our stakeholders, including stockholders, customers, other employees and local communities.

#### 6 Value Diversity and Provide Equal Opportunity

We value and respect the diversity of our employees, suppliers, customers and communities. Discrimination or harassment, in any form or degree, will not be tolerated.

#### ⑦ Be Environmentally Responsible

Nissan employees shall strive, within the business objectives of Nissan, to consider environmental protection when developing products and services, to promote recycling and to conserve materials and energy.

#### **8** Be Active; Report Violations

Nissan employees are expected to carry out their work in accordance with the Code of Conduct. Employees who suspect that a violation of the Code of Conduct has occurred are obligated to report it as soon as possible, and such employees shall be protected from retaliation.

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#### Nissan's Stance Against Discrimination and Harassment

Item 6 of Nissan's Global Code of Conduct, "Value Diversity and Provide Equal Opportunity," is the requirement to respect and value the diversity found among the company's employees, business partners, customers and communities, while rejecting discrimination and harassment in all forms, regardless of the magnitude. Nissan executives and employees must respect the human rights of others and may not discriminate against or harass others based on race, nationality, gender, religion, physical capability, sexual orientation, age, place of origin or any other reason; nor may they allow such a situation to go unchecked if discovered. The company also works to ensure that all employees, both male and female, can work in an environment free from sexual and other forms of harassment.

#### Internal Reporting System for Corporate Soundness

To promote thorough understanding of compliance among all employees worldwide and to facilitate sound business practices, Nissan employs a variety of internal reporting mechanisms. These mechanisms allow employees to submit opinions, ask questions, and make requests or voice concerns to the company, thereby improving workplaces and operations, as well as fostering a compliance-oriented corporate culture.

In Japan, Nissan's internally hosted Easy Voice System is available to any persons offering information in accordance with Japan's Whistleblower Protection Act of April 2006, and has become an integral part of operations in all Nissan Group companies in the country. In August 2013, the Easy Voice System was joined by the externally hosted Nissan Compliance Hotline, which affords employees the ability to be anonymous and further promotes ethical business practices. Using this system, employees can report compliance issues either via the Internet or by telephone. Experienced counselors at a third-party organization guide employees through a series of questions and provide information on follow-up steps, while protecting the privacy of the reporting employee.

Internal reporting systems have also been established at Nissan's global sites in appropriate forms that take into account local culture and laws. In North America, South America, Europe, Africa and many countries in Asia, online and telephone hotlines are available 24 hours a day, 7 days a week. Nissan is also preparing to start full-scale implementation of systems in the remaining countries where it does business. Nissan has a strong nonretaliation policy, a cornerstone of the Compliance Program.

#### **RISK MANAGEMENT**

Nissan defines risk as anything that might prevent it from achieving its business goals. By detecting risks as early as possible, examining them, planning the necessary measures to address them and implementing those measures, the company works to minimize the materialization of risks as well as the impact they cause.

#### Principles for and Approach to Corporate Risk Management

Risk management must be a real-world activity that produces concrete measures. Based on its Global Risk Management Policy, Nissan carries out activities on a comprehensive, groupwide basis.

To respond to changes in its business environment, Nissan has set up a department in charge of risk management that carries out annual interviews of corporate officers, carefully investigating various potential risks and revising the "corporate risk map" in line with impact, frequency and control level.

The Executive-Level Committees make decisions on risk issues that must be handled at the corporate level and designate "risk owners" to manage the risks. Under the leadership of these owners, the company designs appropriate countermeasures. Finally, the board member in charge of internal control regularly reports to the Board of Directors on progress.

With respect to individual business risks, each division is responsible for taking the preventive measures necessary to minimize the frequency of risk issues and their impact when they do arise as part of its ordinary business activities. The divisions also prepare emergency measures to put in place when risk factors materialize. Nissan Group companies in Japan and overseas are strengthening communication to share basic processes and tools for risk management, as well as related information, throughout the Group.

In addition, Nissan has created an area on its intranet called "Corporate Risk Management." Information relating to risk management is also distributed to subsidiaries in Japan, North America, Europe and other overseas regions, as well as to major affiliated companies.

Nissan is currently engaged in meeting the goals of the Nissan Power 88 mid-term business plan. To achieve the ambitious goals of raising both global market share and operating profit margins, the company needs to fully utilize its existing production capacity in countries around the world, so that new spending can be curtailed. It also needs a highly efficient production

#### ▶ website

 Click here for more information on Nissan Power 88. setup allowing quick restoration of production if a plant is forced to shut down by unforeseen circumstances.

To support the mid-term business plan from a risk-management perspective, Nissan's efforts will be expanded worldwide and throughout the supply chain, incorporating the valuable lessons learned from responding to the 2011 earthquake and tsunami in east Japan, as well as the 2011 flooding in Thailand.

#### Protecting Personal Data and Reinforcing Information Security

Nissan shares its Information Security Policy with Group companies worldwide as a basis for reinforced information security, implementing via the Information Security Committee measures enhanced through the PDCA cycle. The company reliably addresses issues by identifying internal and external information leaks as they occur worldwide and reinforces information security on a timely basis. To thoroughly educate and motivate employees to adhere to relevant policy, the company institutes regular in-house educational programs.

▶ website

Click here for more information on risk management. Moreover, Nissan recognizes its social responsibility to properly handle customers' personal information in full compliance with the respective personal information protection law in each region. Nissan has set up internal systems, rules and procedures for handling personal data. All Group companies are fully enforcing these processes. Click here for the GRI Sustainability Reporting Guidelines Index.

➡ website

### **CORPORATE PROFILE**

Date of Establishment	December 26, 1933
Location of Organization's Headquarters	1-1, Takashima 1-chome, Nishi-ku, Yokohama, Kanagawa 220-8686, Japan
Group Structure and Business Outline	The Nissan Group consists of Nissan Motor Co., Ltd., subsidiaries, affiliates and other associated companies. Its main business includes sales and production of vehicles, marine products and related parts. The Nissan Group also provides various services accompanying its main business, such as logistics and sales finance.
Brands	Nissan, Infiniti, Datsun
Consolidated Number of Employees (as of March 31, 2016)	152,421
	R&D: 15 countries/areas (Japan, USA, Mexico, U.K., Spain, Belgium, Germany, Russia, China, Taiwan, Thailand, South Africa, Brazil, India, Vietnam; total of 43 sites)
Global Network (as of March 2016)	Design: 5 countries (Japan, USA, U.K., China, Brazil; total of 7 sites)
	Automobile Production: 40 bases in 19 countries/areas (Total includes Nissan's consolidated vehicle assembly plants and nonconsolidated assembly plants. Plants for OEM production are included, except for those providing OEM vehicles to Nissan in Japan [Fuso, Suzuki, Mitsubishi Motors, etc.].)

# ➡ GRI G4 Indicators ➡ G4-4/G4-5/G4-9

#### FINANCIAL DATA

		billi		
	2013 💌	2014	2015	
Net sales	10,482.5	11,375.2	12,189.5	
Operating income	498.4	589.6	793.3	
Ordinary income	527.2	694.2	862.3	
Profit before tax	529.4	687.4	732.9	
Net income attributable to owners of the parent	389.0	457.6	523.8	
Capital expenditure	536.3	463.1	479.0	
Depreciation	347.1	373.3	401.9	
Research & Development costs	500.6	506.1	531.9	

Since the beginning of fiscal year 2013, Nissan has reported figures calculated under equity method accounting for its joint venture with Dongfeng in China.

▶ website

Click here for more detailed financial information at Nissan's IR website.

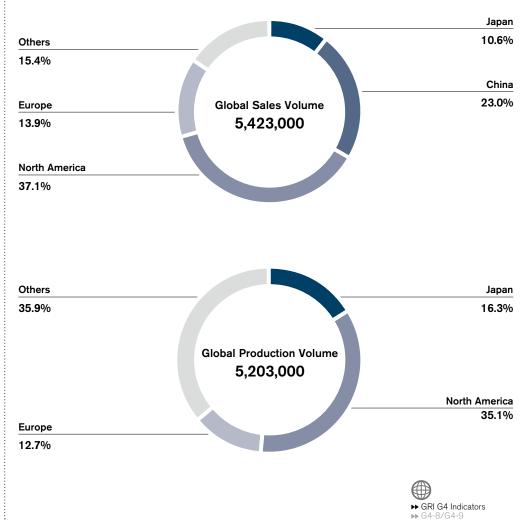


#### **GLOBAL SALES VOLUME AND PRODUCTION VOLUME**

			(FY)
		1	housand units
	2013	2014	2015
Global Sales Volume	5,188	5,318	5,423
Japan	719	623	573
China	1,266	1,222	1,250
North America	1,648	1,829	2,011
Europe	676	755	754
Others	879	889	835
		1	housand units
	2013	2014	2015
Global Production Volume	5,082	5,061	5,203
Japan	1,000	871	849
North America	1,588	1,744	1,825
Europe	716	720	661
Others	1,808	1,726	1,868



Click here for more detailed financial information at Nissan's IR website.



FY2015 figures



#### **EMPLOYEE DATA**

			(FY)
	2013	2014	2015
Nissan Motor Co., Ltd.			
Number of employees	23,085	22,614	22,47
Male	21,153	20,567	20,346
Female	1,932	2,047	2,125
Average age (years)	43.0	43.0	43.0
Male	43.5	43.5	43.
Female	37.9	38.0	38.
Average service (years)	19.4	20.1	20.0
Male	19.9	20.6	20.
Female	14.0	14.9	14.
Employee turnover rate	3.8	4.3	3.
Voluntary leave	0.9	1.1	1.
Company initiated	2.9	3.2	2.
Average annual salary (yen) 📧	7,665,078	7,767,269	7,950,21
Disabled employment ratio	2.09	2.04	2.0
Number of employees taking parental leave	233	269	28
Male	3	11	23
Female	230	258	25
Ratio of returnees from parental leave	99	97	9
Male	100	100	10
Female	99	97	9
Number of employees taking nursing care leave	9	6	
Male	6	2	4
Female	3	4	;
Number of employees taking maternity leave	230	258	28
Days of paid holiday taken	18.3	18.7	18.9
Taken paid holiday ratio	91.5	93.5	95.
Average overtime hours/month	18.9	16.3	19.
Number of unionized employees	22,196	22,179	21,18

Average annual salary for employees not in managerial positions; includes bonuses and overtime pay. Beginning in fiscal 2013, calculated for employee base including managerial positions.



➡ GRI G4 Indicators

▶ G4-9/G4-10/G4-11/G4-12/G4-38/ G4-EC1/G4-LA1/G4-LA3/G4-LA12

		2013	2014	2015
Number of female managers		183	214	24
	Ratio	7.1	8.2	9.
	Target	(Ir	nternal target	)
General and higher-level managers		44	58	6
	Ratio	5.0	6.4	7.
Number of female corporate officers		1	1	
	Ratio	2.0	2.0	1.
	Target	(Ir	nternal target	)
Number of female board members		0	0	
	Ratio	—	—	-
- Female board members (internal)		0	0	
	Ratio	—	—	-
- Female board members (external)		0	0	
	Ratio	-	-	•
Number of auditors		0	0	
	Ratio	—	—	-
Number of new graduates hired		537	606	53
	Male	412	477	40
	Female	125	129	13
Bachelor/master graduates		324	400	34
	Male	249	306	26
	Female	75	94	8
Others		213	206	18
Junior colleg school grad		18	18	
-	Male	18	17	
	Female	0	1	
High school	graduates	195	188	17
	Male	145	154	12
Retention	Female	50	34	4
Number of new recruits 3 years ago		231	220	32
reamber of new recruits o years ago	Male	196	158	25
	Female	35	62	
Number of the above 3 years later	I CIIIale	222	206	30
Number of the above o years later	Male	190	149	24
	Female	32	57	24

			(FY)
	2013 💌	2014	2015
Consolidated			
Consolidated number of employees	142,925	149,388	152,421
	(21,750)	(20,381)	(19,007)
Japan	65,480	65,771	64,837
North America	32,272	37,185	40,15
Europe	15,931	16,535	16,148
Asia	24,383	25,439	26,310
Other countries	4,859	4,458	4,97

Numbers in brackets represent part-time employees not included in the consolidated number of employees.

Since the beginning of fiscal 2013, Nissan has reported figures calculated under equity method accounting for its joint venture with Dongfeng in China.

#### UNION INFORMATION

Nissan Motor Co., Ltd.'s employees are affiliated with the All Nissan Motor Workers' Union, for which the governing body is the All Nissan and General Workers Unions, and the Japanese Trade Union Confederation (Rengo) through the Confederation of Japan Automobile Workers' Unions. The labor-management relations of the company are stable, and the number of union workers was 21,182 as of March 31, 2016.

At most domestic Group companies, employees are affiliated with their respective trade unions on a company basis, and the governing body is the All Nissan and General Workers Unions.

At foreign Group companies, employees are affiliated with their respective trade unions. In Mexico, for example, workers are affiliated with a domestic trade union for which the governing body is the Confederation of Mexican Workers (CTM) or independent trade unions, whereas most employees in the United Kingdom are affiliated with the Unite the Union Nissan Motor Manufacturing (U.K.) Ltd. Branch. Local employees of other Group companies are affiliated with different types of trade unions according to the labor environment in each country.

### SOCIAL CONTRIBUTION ACTIVITY DATA

### Global social contributions (FY2015): ¥2.4 billion

• Expenses for implementing philanthropic programs (labor costs are excluded)

• Monetary donations, sponsorship fees and membership fees spent for philanthropic purposes

• In-kind donations included as equivalent monetary value

#### Breakdown of FY2015 social contributions (Nissan Motor Co., Ltd.)

	Activity costs	Monetary donations	Donations of items (value)	Sponsorships, etc.	Total
Amount (¥ million)	1,083	1,065	82	165	2,395
% of total	45.2%	44.5%	3.4%	6.9%	100%

	2013	2014	2015
	¥12.0 million	¥38.0 million	¥10.0 million
	(by Nissan Motor Co., Ltd. for Great East Japan Earthquake)	(by Nissan Motor Co., Ltd. for Great East Japan Earthquake)	(by Nissan Motor Co., Ltd. for Nepal Earthquake)
	3.0 million yuan (about ¥48.0 million)	2.0 million yuan	\$50,000
	(by Nissan Motor Co., Ltd., Nissan [China] Investment Co., Ltd.	(about ¥33.0 million)	(by Nissan North America, Inc. for heavy rain and flooding in
	and Infinity Business Unit [China] for Sichuan earthquake in	(by Nissan Motor Co., Ltd. for Yunnan Province earthquake in	USA)
Donations for disaster relief	China)	China)	
			¥10.0 million
	¥20.0 million in total	¥5.0 million	(by Nissan Motor Co., Ltd. for heavy rain and flooding in
	(by Nissan Motor Co., Ltd. for typhoon in the Philippines)	(by Nissan Motor Co., Ltd. for heavy rain and landslides in Hiroshima)	northern Kanto region, Japan)
	\$10,000		¥26.0 million
	(by Nissan North America, Inc. for tornado in Illinois, USA)	¥10.0 million	(by Nissan Motor India Pvt. Ltd. for heavy rain and flooding in
		(by Nissan Motor Co., Ltd. for Ebola outbreak in Liberia)	Tamil Nadu, India)



(FY)

#### **ENVIRONMENTAL DATA**

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#### **Regarding Data for Publication**

• Fiscal year: April 1, 2015, through March 31, 2016.

• Scope: All Nissan manufacturing facilities, management offices and subsidiaries worldwide covered under consolidation of Nissan Motor Co., Ltd., and equity method affiliated manufacturing companies.

• Environment Management Regions: Managed companies included in the scope are categorized by following regions:

Japan: Japan North America: United States, Mexico, Canada Europe: United Kingdom, Spain, Russia, Germany, Italy, France, Netherlands, Belgium, Hungary, Finland, Switzerland (Russia data moved from Others and included in Europe from fiscal 2013) Others: China, Thailand, Indonesia, India, Australia, South Africa, Brazil, Egypt, Vietnam, UAE, others

#### Restatement of Information Provided in Previous Years

• Fiscal 2014 Corporate Carbon Footprint per Vehicle Sold was updated as a result of CO<sub>2</sub> emissions revision in logistics.

• Some recalculation of Energy Input and Carbon Footprint figures was made as a result of revisions to our internal guidelines, which include emission factors applied to each operation. This impact of change is less than 3% of total performance data.

• Other fiscal 2014 data also were reviewed and some were revised.

#### ▶ page\_22

See p. 22, Employee Engagement and Education. for additional environment-related information.

#### **CORPORATE INDICATORS**

#### Material Balance

➡ GRI G4 Indicators

▶ G4-EN1/G4-EN3/

Input		(FY)
	Unit	2015
Raw materials	ton	7,342,156
Water	1,000 m <sup>3</sup>	28,978
Energy	MWh	9,686,391

Output		(FY)
	Unit	2015
Vehicles		
Global production volume	unit	5,203,000
Waste	ton	159,345
Waste for disposal	ton	11,355
Recycled	ton	147,990
Wastewater	1,000 m³	20,680
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	3,471,480
VOC	ton	10,820
NOx	ton	450
SOx	ton	37

Nissan's mid-term environmental action plan, Nissan Green Program 2016 (NGP2016), focuses on reducing the environmental impact of corporate activities and pursuing harmony between resource consumption and ecology. To minimize the company's corporate carbon footprint, Nissan aims to reduce CO<sub>2</sub> emissions per vehicle sold and, to improve resource efficiency by increasing the recycled material usage ratio. Four key actions, including the above, are implemented throughout Nissan's corporate activities.

#### **CORPORATE INDICATORS – ENERGY**

#### **Energy Input**

						(FY)
	Unit	2011	2012	2013	2014	2015
Total	MWh	9,460,190	8,894,864	9,207,124	9,474,368	9,686,391
Japan	MWh	5,573,174	4,565,499	4,424,486	4,191,517	4,135,138
North America	MWh	1,733,447	2,157,793	2,061,393	2,424,942	2,609,402
Europe	MWh	939,469	982,332	1,027,027	1,156,519	1,106,800
Other	MWh	1,214,099	1,279,240	1,694,218	1,701,391	1,835,051
Primary						
Natural gas	MWh	3,467,178	2,847,325	2,894,901	3,060,122	3,303,909
LPG	MWh	527,696	360,891	339,751	295,800	302,402
Coal	MWh	160,720	235,239	149,232	199,801	206,307
Heating oil	MWh	253,821	248,445	226,513	225,114	188,943
Gasoline	MWh	90,413	211,449	263,663	322,624	322,349
Diesel	MWh	20,247	72,151	71,371	99,045	81,832
Heavy oil	MWh	87,368	67,967	61,359	58,274	34,289
External						
Electricity (Purchased)	MWh	4,775,721	4,785,477	5,038,384	5,084,989	5,120,190
Renewable energy	MWh	1,157	15,522	118,917	154,515	141,076
Chilled water	MWh	9,087	25,947	11,646	4,239	12,110
Heated water	MWh	0	7,492	6,227	4,635	4,630
Steam	MWh	67,940	114,281	133,849	110,953	100,000
Internal						
Electricity (In-house generation)	MWh		8,199	10,227	8,772	9,423
Renewable energy	MWh		8,199	10,227	8,772	9,423
otal renewable energy	MWh	1,157	23,721	129,144	163,287	150,499
Ratio of renewable energy	%	0.01%	0.26%	1.40%	1.73%	1.55%

Despite the extensive energy-saving activities at Nissan facilities, energy usage was 9.69 million MWh in fiscal 2015, a 2.2% increase from fiscal 2014. Energy-saving activities throughout our corporate operations and efficient manufacturing contributed to limiting the rise, given that sales volume increased by 2.8% in the same period. Production sites of Nissan Motor Co., Ltd. accounted for 8,349,000 MWh of total energy consumption.

Nissan has the objective of increasing the usage of renewable energy to 9% of total energy used in global activities by fiscal 2016.

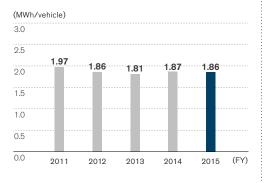
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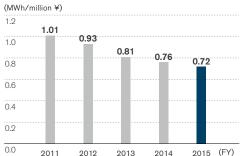


#### **Energy per Vehicle Produced**

In fiscal 2015, despite extensive energy-saving activities at global Nissan facilities, energy per vehicle produced increased to 1.86 MWh, the same level as the previous fiscal year.



#### Energy per Revenue



In fiscal 2015, efficient energy use throughout global Nissan facilities improved energy per revenue to 0.72 MWh, an improvement of 4.5% compared to the previous fiscal year. This result shows our continuous steps toward decoupling financial capital generation from energy use.

#### (By Region)

		(FY)
	Unit	2015
Japan	MWh/vehicle	4.87
North America	MWh/vehicle	1.43
Europe	MWh/vehicle	1.67
Other	MWh/vehicle	0.98

Data for the Japan region includes manufacturing of powertrains and other components for use in overseas assembly operations. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values.





#### **CORPORATE INDICATORS – CO2**

#### **Carbon Footprint**

						(FY)
	Unit	2011	2012	2013	2014	2015
Scope1	t-CO <sub>2</sub>	1,047,691	835,766	812,062	861,457	928,236
Scope2	t-CO <sub>2</sub>	2,051,965	2,432,889	2,538,360	2,422,410	2,547,951
Scope1+2	t-CO2	3,099,656	3,268,655	3,350,422	3,283,867	3,476,187
Japan	t-CO <sub>2</sub>	1,451,343	1,526,182	1,446,871	1,267,676	1,479,721
North America	t-CO <sub>2</sub>	623,654	758,457	698,934	769,696	807,134
Europe	t-CO <sub>2</sub>	311,790	284,079	259,972	290,109	207,986
Other	t-CO2	712,868	699,937	944,644	956,386	976,641
Scope3						
Commuting	t-CO <sub>2</sub>	449,110	468,346	426,487	455,510	319,189
Japan, U.S., Europe	t-CO <sub>2</sub>	213,538	214,619	217,091	227,248	218,137
Logistics	t-CO <sub>2</sub>	1,660,000	1,490,050	1,678,903	1,608,582	1,598,891

#### Scope 1 and 2 Emissions per Vehicle Produced

(t-CO<sub>2</sub>/vehicle)

1.0						
0.8	0.65	0.68	0.66	0.65	0.67	
0.6						
0.4						
0.2						
0.0	2011	2012	2013	2014	2015	(FY)

#### (By Region)

		(FY)
	Unit	2015
Japan	t-CO <sub>2</sub> /vehicle	1.74
North America	t-CO2/vehicle	0.44
Europe	t-CO2/vehicle	0.31
Other	t-CO <sub>2</sub> /vehicle	0.52

Data for the Japan region includes manufacturing of powertrains and other components for overseas assembly use. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values.

#### Scope 1 and 2 Emissions per Revenue

(t-CO<sub>2</sub>/million ¥)

	0.3	3	0.3	4						
0.35		Ĩ			0.2	•				
0.30							0.26	0.:	26	
0.25										
0.20										
0.15										
0.10										
0.05										
0.00	201	1	201	2	201	3	2014	20	15	(FY)

For fiscal 2015, CO<sub>2</sub> emissions per vehicle produced increased 2.8% from the previous fiscal year, with combined Scope 1 and 2 emissions at 0.67 tons. This is also due to a revision in the national grid CO<sub>2</sub> coefficient in Japan.



In fiscal 2015, as measured by the per revenue CO<sub>2</sub> emissions from our global operations, the result was 0.26 tons per ¥1 million, the same level as in fiscal 2014.





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In fiscal 2015, CO<sub>2</sub> emissions from Nissan facilities increased 5.7% from the previous fiscal year, and the total of Scope 1 and 2 emissions was 3.47 million tons. This is due to a revision in the national grid CO<sub>2</sub> coefficient in Japan. Total CO<sub>2</sub> emissions from manufacturing processes were 3.071 million tons (Scope 1 emissions: 0.789 million tons, Scope 2 emissions: 2.282 million tons). 💌

#### **Corporate Carbon Footprint per Vehicle Sold**

In the Nissan Green Program 2016 (NGP2016), the company aims to reduce CO<sub>2</sub> emissions from corporate activities by 20% compared to fiscal 2005, focusing on manufacturing, logistics, offices and dealerships in Japan. In fiscal 2015, overall corporate emissions were reduced by 22.4 % compared to fiscal 2005.

Manufacturing CO<sub>2</sub> per Vehicle Produced In the Nissan Green Program 2016 (NGP2016),

the company aims to reduce CO<sub>2</sub> emissions per

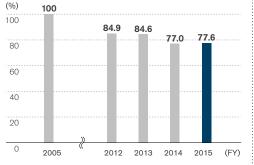
27% in fiscal 2016 compared to fiscal 2005. In

fiscal 2015, Nissan's manufacturing CO<sub>2</sub>

a 22.3% reduction compared to fiscal 2005.

vehicle produced from manufacturing activities by

emissions per vehicle produced reached 0.57 ton,



#### **CORPORATE INDICATORS—WATER**

#### Water Input

•						(FY)
	Unit	2011	2012	2013	2014	2015
Total	1,000 m³	30,513	29,537	30,967	29,162	28,978
Japan	1,000 m <sup>3</sup>	18,565	15,956	16,818	15,018	15,398
North America	1,000 m³	4,591	4,770	5,176	5,419	5,427
Europe	1,000 m³	2,276	2,410	2,404	2,310	2,330
Other	1,000 m <sup>3</sup>	5,081	6,401	6,569	6,415	5,823

Nissan's objective is to reduce water input by 15% in fiscal 2016 compared with fiscal 2010 in cubic meters per production unit. In fiscal 2015, water input in our global sites was 28,978 thousand m<sup>3</sup>, an improvement of 0.6% from fiscal 2014. This is mainly due to the water-saving activities in vehicle production plants, as shown in Vehicle Production Plant Water Input per Vehicle Produced on p. 118. Water input from production sites of Nissan Motor Co., Ltd. in Japan is 6,238,295 m<sup>3</sup>.

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#### Water Discharge

					(ГТ)
Unit	2011	2012	2013	2014	2015
1,000 m <sup>3</sup>	20,398	21,228	23,482	20,938	20,680
1,000 m <sup>3</sup>	13,565	13,710	15,114	13,358	12,976
1,000 m³	3,214	3,055	3,658	3,550	3,916
1,000 m³	1,930	2,031	2,054	1,793	1,740
1,000 m <sup>3</sup>	1,689	2,432	2,656	2,237	2,048
	1,000 m <sup>3</sup> 1,000 m <sup>3</sup> 1,000 m <sup>3</sup> 1,000 m <sup>3</sup>	1,000 m³         20,398           1,000 m³         13,565           1,000 m³         3,214           1,000 m³         1,930	1,000 m³         20,398         21,228           1,000 m³         13,565         13,710           1,000 m³         3,214         3,055           1,000 m³         1,930         2,031	1,000 m³         20,398         21,228         23,482           1,000 m³         13,565         13,710         15,114           1,000 m³         3,214         3,055         3,658           1,000 m³         1,930         2,031         2,054	1,000 m³         20,398         21,228         23,482         20,938           1,000 m³         13,565         13,710         15,114         13,358           1,000 m³         3,214         3,055         3,658         3,550           1,000 m³         1,930         2,031         2,054         1,793

						(FY)
	Unit	2011	2012	2013	2014	2015
Quality						
Chemical oxygen demand (COD)	kg	31,982	34,894	32,130	27,883	28,042

In fiscal 2015, water discharges from our global sites totaled 20,680 thousand m<sup>3</sup>, which was an approximately 1.1% decrease from fiscal 2014.



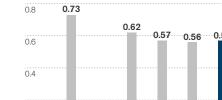
(t-CO<sub>2</sub>/vehicle) 0.8 0.73 0.62 0.57 0.56 0.57 0.6 0.4 0.2 0.0 2005 2012 2013 2014 2015 (FY)



➡ GRI G4 Indicators

G4-EN18

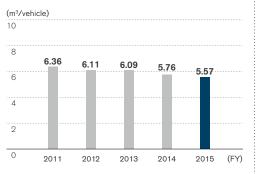
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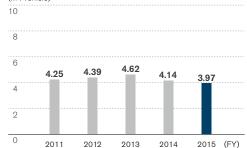


#### Water Input per Vehicle Produced

In fiscal 2015, water input per vehicle produced decreased to 5.57 m<sup>3</sup>, a 3.3% improvement from fiscal 2014. This is mainly due to the water-saving activities in vehicle production plants as shown below.



### Water Discharge per Vehicle Produced (m<sup>3</sup>/vehicle)



#### (By Region)

		(FY)
	Unit	2015
Japan	m³/vehicle	18.14
North America	m³/vehicle	2.97
Europe	m³/vehicle	3.52
Other	m³/vehicle	3.12

Data for the Japan region includes manufacturing of powertrains and other components for overseas assembly use. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values.

### (By Region)

		(FY)
	Unit	2015
Japan	m³/vehicle	15.28
North America	m³/vehicle	2.15
Europe	m³/vehicle	2.63
Other	m³/vehicle	1.10

Data for the Japan region includes manufacturing of powertrains and other components for overseas assembly use. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values. In fiscal 2015, water discharge per vehicle produced was 3.97 m<sup>3</sup>, which was a 3.9% improvement from fiscal 2014.

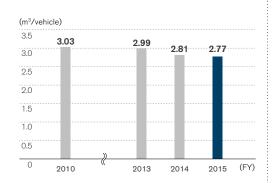


## Vehicle Production Plant Water Input per Vehicle Produced

➡ GRI G4 Indicators

▶ G4-EN8

Nissan's objective is to reduce water input by 15% in fiscal 2016 compared with fiscal 2010 in cubic meters per production unit. In fiscal 2015, water input per vehicle produced in vehicle production plants improved 8.7% compared with fiscal 2010.



#### CORPORATE INDICATORS-EMISSIONS

#### Emissions

						(FY)
	Unit	2011	2012	2013	2014	2015
NOx	ton	731	525	450	453	450
SOx	ton	46	43	40	40	37

GRI G4 Indicators

In fiscal 2015, NOx and SOx emissions from Nissan facilities were 450 tons and 37 tons, respectively.

#### Volatile Organic Compounds (VOCs)

						(FY)
	Unit	2011	2012	2013	2014	2015
Total	ton	11,424	12,305	11,734	11,316	10,820
Japan	ton	4,399	3,623	3,492	2,826	2,850
North America	ton	3,366	5,194	5,338	5,511	5,309
Europe	ton	3,658	3,488	2,904	2,979	2,661

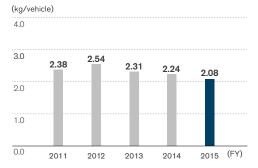


Nissan's objective is to reduce volatile organic compounds (VOCs) from the body manufacturing process by 15% in fiscal year 2016 compared with fiscal year 2010 in grams per square meters. In fiscal 2015, VOCs from manufacturing plants were 10,820 tons globally, a 4.4% decrease from fiscal 2014. This is mainly due to improvements in emissions from paint shop operations.

#### **VOC Reduction from Paint Shop Technologies**

In 2013, Nissan opened its most advanced paint plant in the world. The state-of-the-art facility in Smyrna, Tennessee, sets new standards for quality, efficiency and environmental impacts, as it is capable of reducing energy consumption by 30%, carbon dioxide emissions by 30% and volatile organic compound (VOCs) emissions by 70%. The plant uses an innovative three-wet paint process that applies all three paint layers in succession, before the vehicle goes into the oven. The plant is Nissan's "Showcase Project" as part of the U.S. Department of Energy's Better Buildings Better Plants Challenge, where Nissan has committed to reducing energy intensity in its three U.S. plants by 25% by 2020.

#### VOCs per Vehicle Produced



#### (By Region)

		(FY)
	Unit	2015
Japan	kg/vehicle	3.36
North America	kg/vehicle	2.91
Europe	kg/vehicle	4.03

In fiscal 2015, VOCs per vehicle produced were 2.08 kg, a 7% decrease from fiscal 2014, mainly due to improvements in emissions from paint shop operations.



#### Released Substances Designated by PRTR Law (Japan)\*

						(FY)
	Unit	2010	2011	2012	2013	2014
Japan site total	ton	3,607	4,441	4,158	4,183	3,879
Oppama	ton	911	981	715	676	402
Tochigi	ton	829	915	942	1,155	1,317
Kyushu	ton	1,106	1,390	1,394	1,300	1,152
Yokohama	ton	418	555	581	579	547
lwaki	ton	58	320	183	128	114
NTC	ton	284	280	343	347	347

The table shows chemical substance emissions calculated based on the Japanese government PRTR guideline. PRTR emissions show total volume excluding substances adherent to the product. In fiscal 2014, released substances designated by the PRTR (Pollutant Release and Transfer Register) Law in Japan were 3,879 tons, a decrease from the previous fiscal year.

#### **CORPORATE INDICATORS—WASTE**

#### Waste

						(FY)
	Unit	2011	2012	2013	2014	2015
Total	ton	193,798	168,617	172,849	173,513	159,345
Japan	ton	74,412	65,412	61,999	59,808	63,630
North America	ton	35,780	40,208	51,767	58,452	49,129
Europe	ton	56,996	50,495	51,295	45,358	37,204
Other	ton	26,610	12,502	7,788	9,895	9,382
Detail						
Waste for disposal	ton	40,048	31,187	17,903	13,153	11,355
Recycled	ton	153,750	137,430	154,946	160,360	147,990

Nissan's objective is to reduce waste in manufacturing plants by 2% per year for Japan and 1% per year globally compared to BAU (business as usual). For fiscal 2015, waste generated totaled 159 ktons, an 8.2% decrease from fiscal 2014. Contributing to this were waste-reduction activities at manufacturing plants in Mexico and Spain. The boundary of the waste data is limited to global production facilities. Waste generated from production sites of Nissan Motor Co., Ltd. in Japan is 30,090 tons.

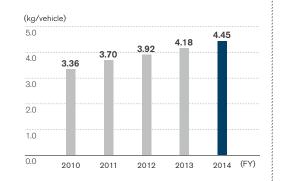
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## PRTR Emissions per Vehicle Produced (Japan)

In fiscal 2014, PRTR emissions per vehicle produced in Japan were 4.45 kg, a 6.5% increase from the previous fiscal year.

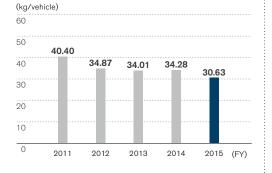






#### Waste per Vehicle Produced

Waste per vehicle produced was 30.63 kg, a 10.7% decrease from fiscal 2014.

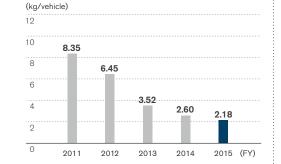


#### (By Region)

		(FY)
	Unit	2015
Japan	kg/vehicle	74.95
North America	kg/vehicle	26.92
Europe	kg/vehicle	56.28
Other	kg/vehicle	5.02

#### Waste for Disposal per Vehicle Produced

In fiscal 2015, Nissan reduced the volume of waste for disposal to a total of 2.18 kg per vehicle produced, a 16% reduction from fiscal 2014. This was mainly due to waste-reduction efforts at the manufacturing plant in Spain.



#### **CORPORATE INDICATORS – LOGISTICS**

#### **Logistics Volume**

						(FY)
	Unit	2011	2012	2013	2014	2015
lotal 🛛	mil ton-km	37,946	35,747	37,719	35,243	35,546
Inbound	mil ton-km	11,603	12,156	12,883	11,578	11,221
Outbound	mil ton-km	26,343	23,591	24,836	23,665	24,325
Sea	%	70.8	70.7	64.3	62.0	60.1
Road	%	20.4	20.6	24.9	25.0	26.5
Rail	%	8.1	8.2	10.5	12.5	13.0
Air	%	0.7	0.5	0.4	0.5	0.3

In fiscal 2015, global shipping increased by 0.9% from the previous fiscal year to reach 35,546 million ton-km, primarily due to increased land shipping accompanying the rise in production in North America. Meanwhile, air freight volume for parts decreased by 33.6% due to enhanced management techniques and use of other transportation methods. Sea freight volume also fell 2.2% from fiscal 2014.



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➡ GRI G4 Indicators

▶ G4-EN23

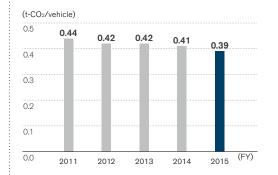
#### CO<sub>2</sub> Emissions in Logistics

						(FY)
	Unit	2011	2012	2013	2014	2015
Total	t-CO <sub>2</sub>	1,642,195	1,490,050	1,678,903	1,608,582	1,598,891
Inbound 💌	t-CO <sub>2</sub>	859,671	821,030	908,804	822,867	797,034
Outbound™	t-CO <sub>2</sub>	782,524	669,020	770,098	785,715	801,857
Sea	%	23.3	23.9	20.2	18.5	18.3
Road	%	50.8	55.3	61.7	60.5	65.7
Rail	%	4.1	4.3	5.2	5.1	5.4
Air	%	21.8	16.4	12.9	15.9	10.6

Inbound includes parts procurement from suppliers and transportation of knockdown parts, and "Outbound" includes transportation of complete vehicles and service parts. In fiscal 2015, CO<sub>2</sub> emissions from logistics were 1,598,891 tons, a decrease of 0.6% from the previous fiscal year, mainly due to a 33.6% reduction in emissions from air freight, which features high emission levels. On the other hand, emission from the road transport increased.

→ GRI G4 Indicators → G4-EN19/G4-EN30

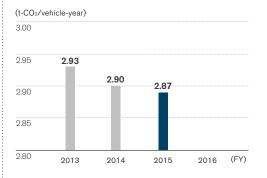
#### **CO2 Emissions per Vehicle Transported**



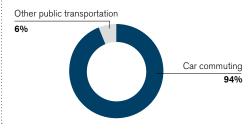
In fiscal 2015, despite an expansion in global production, the  $CO_2$  emissions per vehicle transported were 0.39 ton, a 4.2% improvement from fiscal 2014.



#### **Employee Commuting CO<sub>2</sub> Emissions**



CO<sub>2</sub> Emissions from Commuting **P** 



In fiscal 2013, Nissan introduced a companywide CO₂ reduction plan for car commuting employees in Japan. For fiscal 2015, CO₂ emissions from car commuting in Japan were approximately 53 kton, ■ or 2.87 ton-CO₂/ vehicle annually. This plan encourages car commuters to shift from internal combustion engine vehicles to the zero-emission electric vehicle Nissan LEAF to reduce CO₂. The objective is to reduce emissions by 1% in ton-CO₂/vehicle annually.

- Calculated by using below parameters together with vehicle homologation data:
- Average car commuting range (Japan): 9,000 km/ vehicle-year
- National Greenhouse Gas Inventory Report of Japan (2009), Ministry of the Environment, Japan: 0.33 kg-CO<sub>2</sub>e

- CO<sub>2</sub> emission factor in fiscal 2011, Tokyo Electric Power Company: 0.000463 t-CO<sub>2</sub>/kWh

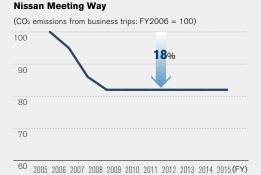
Employees of Nissan offices and manufacturing plants in Japan, fiscal 2015.

#### CO<sub>2</sub> Emissions from Business Trips

In 2005 the company started the Nissan Meeting Way program to improve the efficiency of meetings. This program has five major rules: keep things paperless, require as little movement of people as possible, take only 1 hour per unit of discussion, confirm meeting objectives and record clear minutes. As a result of this program, meeting efficiency was improved; CO<sub>2</sub> emissions from business travel were also reduced through the use of video and telephone conference systems.

#### Achieved 18% Reduction of CO<sub>2</sub> Emissions from Business Travel

Currently, CO<sub>2</sub> emissions from business travel are approximately 248 kton. Nissan has achieved an 18% reduction in business-travel-related CO<sub>2</sub> emissions compared to fiscal 2005 through the use of video and telephone conference systems since 2009.



Contribution to CO<sub>2</sub> Reduction by

#### **CORPORATE INDICATORS—SUPPLY CHAIN**

#### **Supplier Emissions**

				(FY)
	Unit	2012	2013	2014
Carbon footprint	kt-CO <sub>2</sub>	11,662	10,860	10,863
Energy input	GWh	23,104	21,916	22,243
Low-carbon/renewable energy	GWh	-	510	528
Water input	1,000 m <sup>3</sup>	124,921	143,386	130,378
Water discharge	1,000 m³	83,239	81,694	74,050

A supply-chain environmental survey was conducted on global tier-1 suppliers. Calculations were based on actual submitted data from suppliers and combined with other estimated data. This survey is one of Nissan's efforts to reduce CO<sub>2</sub> emissions throughout the entire value chain. In fiscal 2014, the carbon footprint of contract suppliers was flat from the previous fiscal year. From fiscal 2014, with tier-1 suppliers' own individual targets, overall CO<sub>2</sub> emissions are expected to improve by 1% in t-CO<sub>2</sub> per turnover annually. Overall water input is also expected to improve by 1% per turnover annually. Nissan is regularly engaging with global suppliers to continuously reduce environmental impacts. The company is involved in energy-saving collaborative Thanks Activities with suppliers to reduce energy/CO<sub>2</sub>.



Scope 3 Emissions by Category		(FY)
Category	Unit	2015
1. Purchased goods & services	kt-CO <sub>2</sub>	16,485
2. Capital goods	kt-CO <sub>2</sub>	1,227
3. Fuel- and energy-related activities	kt-CO <sub>2</sub>	378
4. Upstream transportation & distribution	kt-CO <sub>2</sub>	797
5. Waste generated in operations	kt-CO <sub>2</sub>	181
6. Business travel	kt-CO <sub>2</sub>	248
7. Employee commuting	kt-CO <sub>2</sub>	319
8. Upstream leased assets	kt-CO <sub>2</sub>	0
9. Downstream transportation & distribution	kt-CO <sub>2</sub>	802
10. Processing of sold products	kt-CO <sub>2</sub>	0
11. Use of sold products	kt-CO <sub>2</sub>	122,799 💌
12. End-of-life treatment of sold products	kt-CO <sub>2</sub>	389
13. Downstream leased assets	kt-CO <sub>2</sub>	480
14. Franchises	kt-CO <sub>2</sub>	0
15. Investments	kt-CO <sub>2</sub>	0
Total	kt-CO <sub>2</sub>	144,105

#### ▶ page\_136

 The values marked with an asterisk are subject to assurance by PricewaterhouseCoopers Sustainability LLC. For details, please see p. 136. Nissan conducted a study based on the Corporate Value Chain (Scope 3) Accounting and Reporting Standard from the GHG Protocol. The results showed that about 90% of Scope 3 emissions were from the use of sold products. Nissan has introduced fuel-efficient vehicles globally and disclosed the resulting progress in corporate average fuel efficiency. As about 10% of Scope 3 emissions were from purchased goods and services, Nissan believes actions are necessary along the entire value chain. Since 2011, the company has shared its environmental policy and promoted collaboration with suppliers.

#### CORPORATE INDICATORS-ENVIRONMENTAL ACCOUNTING

#### **Environmental Conservation Cost**

	Unit	20	013	2	014
		Investment	Cost	Investment	Cost
otal	mil ¥	3,245	178,833	4,268	179,769
Business area	mil ¥	25	1,637	28	1,532
Upstream/downstream	mil ¥	-	665	-	566
Management	mil ¥	0	2,362	0	2,321
R&D	mil ¥	3,220	174,000	4,240	175,000
Social activities	mil ¥	0	114	0	122
Damage repairs	mil ¥	-	55	-	228

		(FY)
Unit	2013	2014
mil ¥	7,273	6,366
mil ¥	897	1,341
mil ¥	6,376	5,025
	mil ¥ mil ¥	mil ¥ 7,273 mil ¥ 897

All environmental costs are based on the guidelines provided by Japan's Ministry of the Environment, and are calculated for activities in Japan only.





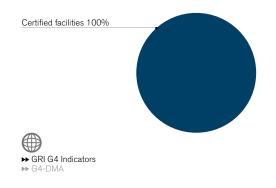
#### **CORPORATE INDICATORS—FACILITY**

#### **Carbon Credit**

						(FY)
	Unit	2011	2012	2013	2014	2015
Allowance	t-CO <sub>2</sub>	7,308	7,308	21,015	21,225	19,730
Credit	t-CO <sub>2</sub>	4,066	5,261	-	-	-

Nissan Motor Iberica, S.A. in Barcelona, Spain, entered EU-ETS in fiscal 2009. The verified allowance earned for fiscal 2015 was 19,730 tons.

#### **ISO 14001 Certification**



Nissan is progressing with the introduction of environmental management systems to all its operating sites worldwide. In January 2011 the company obtained integrated ISO 14001 certification for its Global Headquarters and all main facilities in Japan for research and development, production and distribution, as well as for product development processes. Nissan has also obtained ISO 14001 certification at all major production plants outside Japan.

#### **Green Building Policy**

With ISO 14001 management processes for evaluating environmental impact, Nissan makes it a key task to optimize its buildings in the construction or refurbishing stages to make all its structures greener. Evaluation metrics in this area include buildings with a smaller environmental footprint, such as lower CO<sub>2</sub> emissions; construction methods producing less waste and emissions; and reduced use of hazardous materials and other quality control tasks. Furthermore, in Japan Nissan uses the Ministry of Land, Infrastructure, Transport and Tourism's Comprehensive Assessment System for Built Environment Efficiency (CASBEE) as one performance index.

Among Nissan's current business facilities, the Global Headquarters in the city of Yokohama has earned CASBEE's highest "S" ranking, making it the second Nissan structure to do so following the Nissan Advanced Technology Center (NATC) in Atsugi, Kanagawa Prefecture. The Global Headquarters gained a Built Environment Efficiency Rating of 5.6, the highest CASBEE rating for a new structure, making it one of Japan's greenest office buildings. The building's use of natural energy sources to reduce its energy usage and its CO<sub>2</sub> emissions were evaluated highly, as were its methods of water recycling and its significant reduction in waste produced.

Since April 2000, Nissan has been deploying unique environmental facility certification system based on ISO 14001 for dealerships called the Nissan Green Shop. The company's environmental policy requires all dealerships in Japan to meet a certain standard and continue to be audited by Nissan each year. The dedicated evaluation sheet has a total of 84 KPIs and is regularly revised to reflect requirements of national legislation, local communities and the Nissan Green Program.

#### **Fines from Environmental Laws**

There were no fines from violations of environmental laws in the reporting year. However, two environmental accidents that we received guidance for and a warning about occurred as follows:

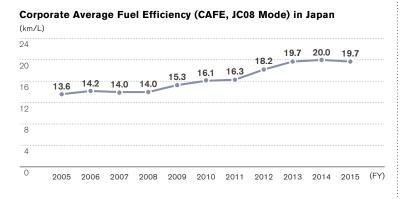
November 20, 2015: At the Nissan Technical Center (Kanagawa Prefecture, Japan), an unintentional release of wastewater exceeding the regional sewage quality limit occurred. Through cooperation with the municipal government, no damage to sewage treatment and no water quality degradation were confirmed. We revised the wastewater treatment manual and carried out thorough employee training. February 22, 2016: The Nissan Prince Dealer at Nagasaki Washizaki accidentally released a limited amount of waste oil into the Hanzo River through rainwater drain gutters. We immediately closed the floodgate and installed a permanent dike for prevention with guidance from the municipal government and fire station.





#### PRODUCT INDICATORS

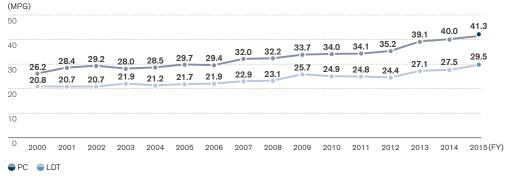
#### **PRODUCT INDICATORS—FUEL ECONOMY, CO2**





The sales of fuel efficient models such as Note kept growing in fiscal 2015, resulting in average fuel efficiency at 19.7 km/L in JC08 mode.

#### Corporate Average Fuel Efficiency (CAFE) in the United States



In fiscal 2015, sales of the newly launched fuel-efficient Altima and Rogue resulted in CAFE of 41.3 MPG for passenger cars, an improvement of 3.3% from fiscal 2014. CAFE for light duty trucks was 29.5 MPG.



## CO<sub>2</sub> Emission Index from Nissan Vehicles in Europe

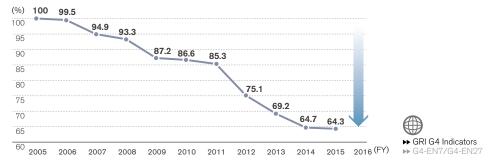
In fiscal 2015, sluggish sales of fuel-efficient, small-class vehicles worsened CO<sub>2</sub> emissions by 3.5% compared to fiscal 2014 for Nissan's passenger car models sold in Europe.



### → GRI G4 Indicators → G4-EN7/G4-EN27

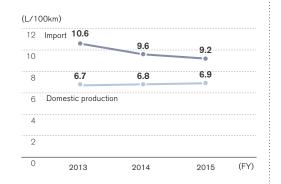
#### Global Corporate Average Fuel Efficiency (CAFE)

Nissan's CAFE result in fiscal 2015 represented a 35.7% improvement from the fiscal 2005 level (as measured by fuel efficiency standards in the Japanese, U.S., European and Chinese markets). The sales of hybrid cars in Japan, the Note in Europe and the Altima and Versa in the U.S. market improved the overall CAFE result.



#### Corporate Average Fuel Consumption in China

Fuel efficiency for domestically produced vehicles worsened 1.5% from the previous fiscal year, while the one for import vehicles improved by 4.2%.





#### **Top Fuel Economy Models**

			(FY)
Region	Model	Unit	2015
Global	Moco 0.66L 2WD + Stop/Start System	km/L (JC08)	30
Best selling model	X-Trail (Rogue)	km/L (JC08)	15.6~20.6
Japan (excl. light vehicles)	Note 1.2L 2WD + Super Charger + Stop/Start System	km/L (JC08)	26.8
Japan (incl. light vehicles)	Moco 0.66L 2WD + Stop/Start System	km/L (JC08)	30
Europe	Note 1.5L dCi + Stop/Start System	g-CO <sub>2</sub> /km	93
U.S.	Versa 1.6L 2WD CVT	MPG	35
China	Lannia 1.6L CVT+Start/Stop System	L/100km	5.3



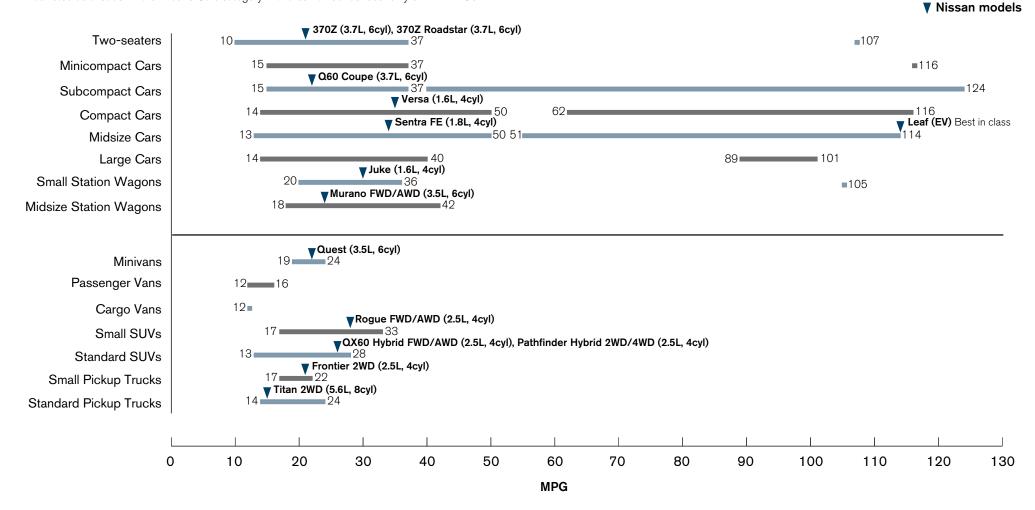
Only models with internal combustion engines are listed, and the 100% electric Nissan LEAF is excluded. From fiscal 2013, fuel economy in Japan is shown in JC08 mode.

#### Applying EVs Toward a Zero-Emission Society

During fiscal 2015, Nissan started lending the e-NV200 for free for up to three years to some 300 municipal governments that has proposed vehicle utilization plans to help improve their urban development and solve administrative issues. The e-NV200, a multipurpose, zero-emission commercial van, delivers a cruising range of 190 kilometers in Japan's JC08 mode and is equipped with "Power Plug" outlets that can draw a maximum of 1,500W from the onboard battery. Nissan expects the proposed activities to take full advantage of the e-NV200's clean, quiet operation and electric power availability. Assuming average operation in Japan, the activities overall will mitigate approximately 870 tons of CO<sub>2</sub> annually.

#### **Fuel Economy Leaders**

The *Fuel Economy Guide* published by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE) helps buyers to choose the most fuel-efficient vehicle. Based on the *Model Year 2015 Fuel Economy Guide*, the all-electric Nissan LEAF was listed as a leader in the Midsize Cars category with a combined fuel economy of 114 MPGe.



Compiled from the Model Year 2015 Fuel Economy Guide by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE).

#### **PRODUCT INDICATORS – TECHNOLOGIES**

#### **Ratio of Powertrain Type (Shipment Base)**

	Unit	Gasoline- powered vehicles	Diesel- powered vehicles	Natural-gas drive vehicles	Hybrid drive vehicles	Electric drive vehicles
Japan	%	81.7	2.9	0.0	1.9	1.0
North America	%	98.8	0.4			
Europe	%	51.8	45.3			
Other	%	89.5	9.4			



Sales of the all-electric Nissan LEAF—the world's best-selling zeroemission car—surpassed 200,000 units in fiscal 2015. The ratio of EVs is steadily improving as a new commercial EV, the e-NV200, was launched.

#### **Green Product Innovation**

Nissan believes it is important not only to develop and introduce zeroemission vehicles such as electric vehicles and fuel-cell vehicles, but also to improve the fuel economy of engine-powered vehicles. Nissan's PURE DRIVE title is given to vehicles that not only meet existing fuel economy requirements in each market but clear more stringent internal standards which we periodically review in line with societal demands. PURE DRIVE implements innovative environmental technologies that maximize energy efficiency to lower fuel consumption and reduce CO<sub>2</sub> emissions. Cars featuring these technologies are being marketed worldwide.

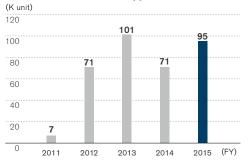
#### **Core Technologies for Green Products**

Nissan strives to develop technologies that maximize the overall energy efficiency of internal combustion engines and improve transmission performance, as well as zero-emission technologies. Nissan's core technologies in this area are lithium-ion batteries, Intelligent Dual Clutch Control Hybrid and the Xtronic transmission (Continuously Variable Transmission, or CVT) system.

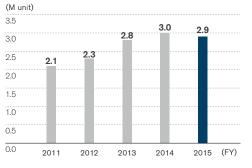


#### (K unit) 66 70 61 60 53 50 40 30 30 23 20 10 0 2015 (FY) 2011 2012 2013 2014

#### Number of HEV Units Shipped



#### Number of ICE with CVT Units Sold



#### 131

(FY)

#### EV

The Nissan LEAF is now sold in 47 countries, with sales increasing every year. In December 2015, total sales worldwide reached 200,000 vehicles.

Nissan also launched the company's first commercial EV, the e-NV200, in the European and Japanese markets in 2014.

#### HEV

Nissan launched the X-Trail Hybrid in fiscal 2015 with expansion of its electric vehicle (EV) mode and optimized system mode operation to offer 25% improved fuel economy compared to equivalent conventional vehicles, achieving top-level fuel economy in its class.

In fiscal 2013, Nissan launched two rear-wheel-drive vehicles, the Skyline and the Infiniti Q50, equipped with an original hybrid system. Nissan is also expanding use of its hybrid system for front-wheel-drive vehicles. The extremely compact system is combined with the Xtronic transmission in the fiscal 2013 Pathfinder and Infiniti QX60.

#### The Xtronic Transmission

Nissan's goal is to ship 20 million Xtronic-equipped vehicles, with their fuel efficiency benefits, by fiscal 2016 from their first launch in 1992, thereby helping to reduce global  $CO_2$  emissions. Nissan sold 2.87 million Xtronic vehicles in fiscal 2015, bringing the cumulative total to 21.97 million.

#### **PRODUCT INDICATORS—OTHER EMISSIONS**

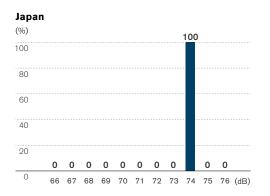
#### Compliance with Emission Regulations (Passenger Cars Only)

	Unit	2014
Japan 75% lower than 2005 standard (SU-LEV)	%	99
Europe Euro 6b	%	100
U.S. U-LEV/SULEV/ZEV	%	96
China National 5	%	100

While Nissan has zero-emission vehicles, the ultimate clean car, in its portfolio, the company endeavors to make the entire fleet as clean as possible by reducing exhaust emissions. Nissan has introduced vehicles that comply today with each region's or country's more stringent future emission regulations. Due to differences in regulations, there is no direct way to compare by region or country, but this shows the percentage of Nissan's fleet in each location produced to the strictest standards of that region or country.

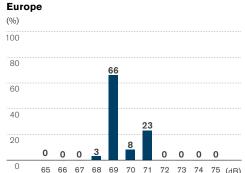


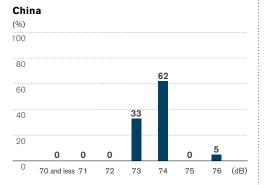
#### Share of Noise Emissions



Noise emissions are shown by the noise produced by the acceleration of vehicle in accordance with each national regulation. Only complete, built-up imported models are shown for China data.



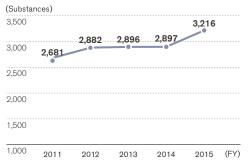




#### **Regulated Chemical Substances**

In 2007, Nissan created a unified global approach to reducing environment-impacting substances. Since then the company has enhanced management of these substances and advanced plans to reduce or to replace their use. Through communication with NGOs, Nissan restricts usage of substances that have potential to be hazardous, that are thought to have a high risk of falling into this category or that have been identified as potential threats even if they are not covered by laws and regulations in each country where it does business. As defined in the Nissan Engineering Standard (NES) titled "Restricted Use of Substances," these substances are banned or subject to controls in line with this approach. Nissan is working to apply this standard from the early development phase onward to the modules, raw materials and service parts that go into all Nissan vehicles. In fiscal 2015, the company revised its standard for assessment of hazards and risks, actively applying restrictions to substances that are increasingly the subject of consideration around the world. As a result, the number of substances covered by the NES rose to 3,216.

#### **Defined Chemical Substances**



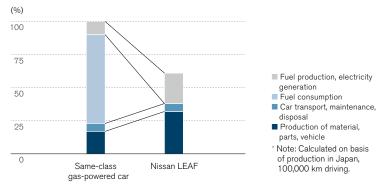


#### PRODUCT INDICATORS-LIFECYCLE ASSESSMENTS (LCAs)

#### Lifecycle Assessment to Reduce Environmental Impact

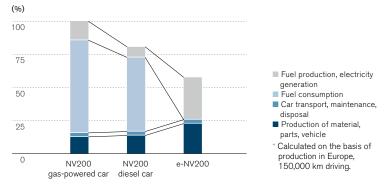
Nissan uses the lifecycle assessment (LCA) method to evaluate and comprehensively assess environmental impact in all stages of the vehicle lifecycle, from resource extraction to production, transport, customer use and vehicle disposal. The company also carries out LCAs for new technologies as they are introduced.

#### CO<sub>2</sub> Emissions over Vehicle Lifecycle for Nissan LEAF\*



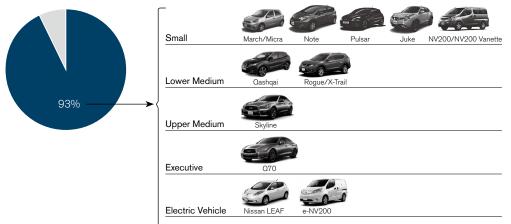
Company calculations show that the Nissan LEAF reduces CO<sub>2</sub> emissions by up to 40% over its lifecycle compared to gasoline-powered vehicles of the same class. This assessment was certified by a third-party LCA assessment organization, the Japan Environmental Management Association for Industry. Nissan has also obtained LCA methodology certification from TÜV Rheinland in 2013 and calculated LCAs for the e-NV200. Calculations show that electric vehicles reduce CO<sub>2</sub> emissions by up to 40% over their lifecycle compared to equivalent gasoline-powered vehicles and by 30% compared to diesel-powered vehicles.





Electric vehicles' unique parts, such as their batteries, show relatively higher CO<sub>2</sub> emissions compared to those for ICE vehicles at the manufacturing stage. But in fuel production, electricity generation and energy use, the higher energy efficiency of electric vehicle leads to lower CO<sub>2</sub> emissions. Nissan is making efforts to reduce CO<sub>2</sub> emissions in manufacturing by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials.

Nissan also continues to pursue technology development on electric powertrains, power savings on ancillary devices and the use of renewable energy to reduce CO<sub>2</sub> emissions over the entire EV lifecycle. In the end-of-life stage, used batteries can be utilized for energy storage to contribute to comprehensive CO<sub>2</sub> emission reduction in society.



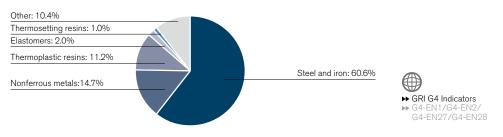
LCA Conducted Product Ratio in Sales Volume (EU Market)

#### Nissan is working to enhance the application of the LCA method and to extend quantitative understanding of environmental impact. In fiscal 2015, the LCA application rate as a percentage of total sales volume in the EU was more than 90%, thus allowing Nissan to better understand the environmental impact of a wider range of segments, including small- to large-size internal combustion engine vehicles and zero-emission vehicles. The segment shown here is made with reference to the definition of the European Automobile Manufacturers' Association (ACEA).

#### **PRODUCT INDICATORS—MATERIALS, RECYCLING**

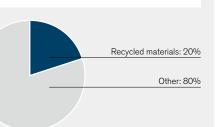
#### Material Ratio

Nissan is increasing the use of renewable resources and recycled materials in addition to the traditional approach of using resources more efficiently to reduce reliance on them. The company's efforts with respect to recycled materials are based on the thought that once a natural resource is extracted, it should continue to be used, while maintaining quality, to minimize environmental impact. Nissan has set a target of increasing the recycled material usage ratio per new vehicle for which production begins in fiscal 2016 by 25% in Japan, the United States and Europe. The data shown here represents the status in fiscal 2015.



#### **Recycled Material Ratio**

For production, Nissan has focused efforts on using recycled materials containing steel, aluminum and plastics. As a result, recycled materials account for approximately 20% by weight in the average vehicle. For example, the recycled ratio of cast aluminum in vehicle components such as engine cylinders is over 90% in total. This calculation was based on Nissan production in fiscal 2010.



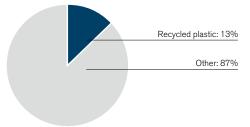
#### Recycling

Nissan has defined a long-term goal of maintaining global usage of these natural resources at 2010 levels through 2050.

Toward this end, Nissan is presently researching ways to increase the recovery rate further in order to reclaim and reuse valuable materials from end-of-life vehicles (ELVs). As of fiscal 2015, company calculations showed that Nissan had achieved a recovery rate of 99.6% in Japan.

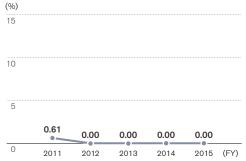
From the early development stage, Nissan considers the use of highly recyclable materials and makes structural improvements for ease of recycling. Since the Note, launched in 2005, all new models have achieved a 95% or greater recyclability rate based on the national regulations on ELVs in regions such as Europe, Japan and Korea.

#### **Recycled Plastic Usage in Vehicle**



Ratio of recycled plastic to total plastic was based on the best performance model in Europe. Recycled plastic use in fiscal 2015 was 13.0%.

#### Automotive Shredder Residue to Landfill Ratio



Based on the Automobile Recycling Law in Japan, Nissan calculated the ratio of landfill to residue after removing ferrous and nonferrous metals from ELVs. Nissan achieved a zero landfill ratio in fiscal 2015 by enhancing recycling capability through the acquisition of additional facilities that comply with the law.

► GRI G4 Indicators
► G4-EN2/G4-EN27

#### **PRODUCT INDICATORS—ELV PROGRAMS**

#### **ELV Programs**

Nissan has joined forces with other automotive companies to promote the recycling of ELVs through dismantling and shredding. In fiscal 2015, the program in Japan achieved a final recovery ratio for ELVs of 99.6% (actual value), at the same time reducing the amount of automotive shredder residue (ASR) related landfill and incineration disposal to zero based on the calculation method provided by the Japanese government.

This program consists of three phases: First, any Nissan ELVs entering the dismantling process are recycled, including flat steel, cast aluminum, bumpers, interior plastic parts, wire harnesses and precious rare earth metals. Second, specific items such as lithium-ion batteries are collected individually and directed to a dedicated recycling process. Third, residues from the dismantling process are shredded and collected at a dedicated facility.

Since 2004, Nissan and seven other Japanese auto manufacturers have promoted this facility to recycle ASR. Aligned with the Automobile Recycling Law in Japan, this serves as an integral part of a system to recycle ASR effectively, smoothly and efficiently. Nissan is a team leader of this alliance.

Another activity is Nissan's take-back system for ELVs in Europe. This network of Authorized Treatment Facilities was developed for individual countries in collaboration with contracted dismantlers, contracted service providers and governments to be aligned with the European ELV directive.

#### THIRD-PARTY ASSURANCE

#### Third-Party Assurance

This English language report is a translation of the original Independent Practitioner's Limited Assurance Report in Japanese for reader's convenience.

Independent Practitioner's Limited Assurance Report on Sustainability Report 2016

June 15 2016

Director, Nissan Motor Co., Ltd.

To: Mr. Fumiaki Matsumoto.

We have undertaken a limited assurance engagement of the information marked ( $\phi$ )(hereafter the "Selected Information") in the Nissan Sustainability Report (hereafter the "Report") for the year ended March 31, 2016.

We have not performed any procedures with respect to other information in the Report and, therefore, no conclusion is expressed on such information.

#### Management's responsibilities

Nissan Motor Co., Ltd. (hereafter the "Company") is responsible for the preparation of the Selected Information in accordance with the "Basis of calculation for CO2 Emissions, waste generated and water input subject to third party assumace" (hereafter "Reporting Criteria") which is applied as explained in note of the Report. The Company's responsibility includes the design, implementation and maintenance of internal control, relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error.

GHG quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

#### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

In accordance with the International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures with respect to compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### Understanding reporting and measurement methodologies

The absence of a significant body of established practice on which to base the evaluation and measurement of non-financial information allows for different, but acceptable, measurement techniques. The nature of non-financial information, and the techniques and precision used to determine and evaluate it, can result in materially different measurements. This may affect comparability between different entities and periods of time. The Selected Information, therefore, should be read and understood together with the Reporting Criteria ("Basis of calculation for CO2 Emissions, waste generated and water input subject to third party assurance" )<sup>1</sup>. The Reporting Criteria used is applicable as at March 31, 2016.

PricewaterhouseCoopers Sustainability LLC

Sumitomo Fudosan Shiodome Hamarikyu Bldg.

8-21-1 Ginza, Chuo-ku, Tokyo 104-0061, Japan

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Selected Information based on the procedures we have performed and the evidence we have obtained. Depending on the type of information, we conducted our limited assurance engagement in accordance with:

- International Standard on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gas Statements ("ISAE 3410") for CO2 emission information (scope 1 emission and scope 2 emission).
- International Standard on Assurance Engagements 3000, Assurance Engagements other than Audits and Reviews of Historical Financial Information ("ISAE 3000" revised December 2003) for other information in the Selected Information.

These standards require that we plan and perform this engagement to obtain limited assurance about whether the Selected Information is free from material misstatement. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

We assessed the risk of material misstatement in the Selected Information due to fraud or error, and performed the following procedures:

- · inquiry with relevant the Company's management;
- evaluating the suitability of the Reporting Criteria as the basis for preparing the Selected Information;
- responding to the assessed risks as necessary in the circumstances;
- evaluating the overall presentation of the Selected Information;

evaluating the design of the key structures, systems, processes and controls for managing, recording and reporting the Selected Information. This included visiting the three production sites and corporate offices selected on the basis of their inherent risk and materiality to the group, to understand the key processes and controls for reporting site performance data and to obtain supporting information; and

 performing limited substantive testing on a selective basis of the Selected Information at the corporate offices and in relation to thirty-two production sites to check that data had been appropriately measured, recorded, collated and reported.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling information with underlying records.

The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the Selected Information has been prepared, in all material respects, in accordance with the Reporting Criteria.

#### Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information in this report for the year ended March 31, 2016 is not prepared, in all material respects, in accordance with the Reporting Criteria.

<sup>1</sup> The maintenance and integrity of the Company's website is the responsibility of the Company's management. Our engagement did not consider matters relating to the maintenance and integrity of the Company's website. Accordingly, we accept no responsibility for any errors or changes to Selected Information or Reporting Criteria when presented on the website.

### [Remarks] Basis of calculation for CO<sub>2</sub> emissions, waste generated and water input subject to third-party assurance

- CO<sub>2</sub> emissions from production sites: Calculated based on Nissan internal standards. The energy use data of each site is based on invoices from suppliers, which are multiplied by a CO<sub>2</sub> emissions coefficient publicly available for each production site.
- CO<sub>2</sub> emissions resulting from employees' commutes: Calculated based on the GHG Protocol Scope 3 Standard. Specifically, the annual CO<sub>2</sub> emissions resulting from each employee's commute are calculated using a standard unit of measurement announced by Japan's Ministry of Economy, Trade and Industry, Ministry of the Environment, and Ministry of Land, Infrastructure, Transport and Tourism. This figure is calculated on the basis that employees working at Global Headquarters commute by bus and other employees use cars that are vehicles designated by Nissan, based on the data they submit when applying for transportation allowances. This is multiplied by the number of employees at each facility or office.
- CO<sub>2</sub> emissions from the use of sold products: Calculated using the average regional CO<sub>2</sub> emissions per vehicle multiplied by estimated average lifecycle mileage and multiplied by fiscal 2015 sales volumes. The average CO<sub>2</sub> emissions for the use phase (including direct emissions only) per unit are calculated for each of our main regions (Japan, U.S., EU and China) and extrapolated from average emissions of these markets for other markets. The Sustainable Mobility Project (SMP) model issued by the International Energy Agency was used to determine estimated average lifecycle mileages.
- Scope 3 emissions figures are estimates subject to varying inherent uncertainties.
- Waste generated from production sites of Nissan Motor Co., Ltd. in Japan: Calculated based on Nissan internal standards. The discharged waste is based on data from truck scales at the sites or data reported by disposal contractors. All discharged waste within the sites concerned is targeted. However, nonsteady and irregular generated waste, waste generated in canteens, waste from permanently stationed companies at the sites, waste generated by external vendors and waste from construction are excluded. In addition, materials recycled in-house, used in reproduction (reused by Nissan) or recycled (as salable, valuable materials) are not categorized as generated waste.
- Water input from production sites of Nissan Motor Co., Ltd. in Japan: Calculated based on Nissan internal standards. Water input is the water withdrawal amount according to billing meters or company meters installed on site. The water withdrawal amount includes drinking water (tap water), industrial-use water, underground water (spring/well water) and rainwater or the like.

#### **GRI** index (Environment)

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