# **SUSTAINABILITY REPORT 2014**



**NISSAN MOTOR CORPORATION** 







# **CONTENTS** Sustainability Strategies 02 14 03 52 05 .....11 68 103 75 142 91 96

On the Cover

Nissan LEAF

## **VIEWING THIS REPORT**

This Sustainability Report is an interactive PDF. You can use the navigation tabs and buttons to access the information you need.

Section Tabs

INTRODUCTION CEO MESSAGE Click the tabs to jump to the top page of each section.

Navigation Buttons		Link Buttons				
<b>⋖</b> ◀	Go back one page		Jump to linked page			
$\nabla$	Return to previously viewed page		Jump to information on the web			
<b>&gt;&gt;</b>	Go forward one page	[1]	Jump to information in CSR Data			

#### Our Related Websites

#### ■ Editorial Policy

Nissan publishes an annual Sustainability Report to communicate to stakeholders its social responsibilities. This year's report reviews the progress and results achieved in fiscal 2013 with a focus on the eight sustainability strategies.

■ Scope of the Report

Period Covered: The report covers fiscal 2013 (April 2013 to March 2014); 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.

▶ website

- Date of Previous Report
- Sustainability Report 2013, issued June 24, 2013.
- Reporting Cycle
- Once annually since 2004.
- Third-Party Assurance

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

▶ page\_139

#### ■ 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.

Mistakes and Typographical Errors

All errors discovered after the report is published will be corrected and displayed on our website.

■ For Further Information Nissan Motor Co., Ltd.

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Sustainability Report 2014

Publication Date: June 23, 2014

\* 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

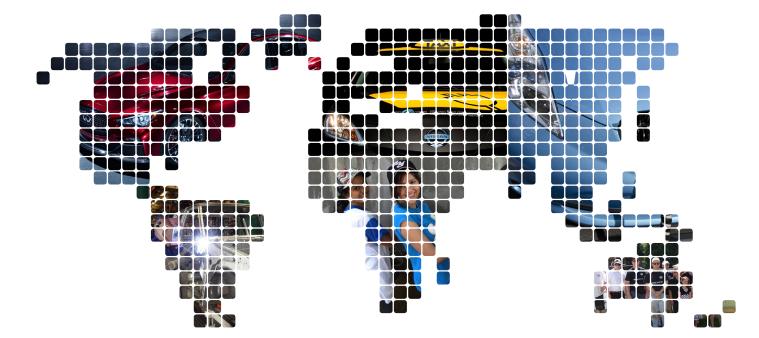
## **Corporate Vision**

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.

\* Nissan's stakeholders include customers, shareholders, employees, dealers and suppliers, as well as the communities where the company works and operates.





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 of its 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 and to make mobility more affordable for people in emerging countries are part of the initiatives rooted in this vision.

This approach to corporate social responsibility is called "Blue Citizenship." Through Blue Citizenship, Nissan aims to be a company that meets the expectations of society.

In order to share the company's CSR-related thinking and activities with as many people as possible, each year Nissan publishes this Sustainability Report. Sharing this information broadly with stakeholders increases the transparency of the company's actions, as well as providing an opportunity to improve Nissan's activities by incorporating external feedback, thereby contributing to the development of a sustainable society.

## **CEO MESSAGE**



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

At Nissan, our commitment to sustainability is the cornerstone of our business. It is also a driver of innovation. Numerous breakthroughs we've 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. As we develop the cars of the future, we're working to create products that not only strengthen our business but also enhance our society, increase mobility and help to solve today's most significant safety and environmental challenges.

For more than a century, cars have helped to drive economies and provided freedom of mobility to billions. But this progress has come at a cost. Every day, more than 3,000 people die in auto-related accidents. Many are due to human error. In the United States, for example, it's the cause of 93% of accidents. In addition, traffic congestion and long commutes result in hours of lost productivity—and exacerbate carbon-output problems. The world's  $CO_2$  emissions have grown to exceed 30 billion tons annually. Transport generates at least 20% of these emissions.

As one of the world's leading car makers, Nissan has a responsibility to ensure that the automobile remains a vehicle for global progress and prosperity. This means we must reduce and help to eliminate the negative consequences of car use while bolstering the benefits of clean, efficient transportation. We have launched a variety of initiatives to meet these goals—and to ensure that our business operations conserve water and air resources, minimize  $CO_2$  output and utilize renewable energies. One of the most exciting steps we are taking to transform the use and impact of automobiles is our work to deliver Nissan's Autonomous Drive technology to the marketplace.

Autonomous driving vehicles will be the next frontier of transportation. They have significant potential: to conserve energy, enhance traffic management and reduce accidents. With the help of a clear regulatory framework and the support of government and industry partners, Autonomous Drive technologies could eventually lead to "zero fatality" roads.

We have pledged that Nissan will be ready to bring vehicles with Autonomous Drive to the market by 2020. Until then, we are incorporating this technology into our vehicles and introducing it on a progressive basis. In 2013, we demonstrated the advanced stage of our development efforts around the world. In Japan, we became the first automaker to obtain a license plate for public road testing of autonomous driving technologies. And—with Prime Minister Shinzo Abe along for the ride—we showcased our Autonomous Drive capabilities for the first time on the streets of Tokyo.

Just as Nissan pioneered the electric-vehicle segment with the introduction of the LEAF—the best-selling EV in history—we are proud to be at the forefront of Autonomous Drive development. And we are committed to maintaining our position as the industry's zero-emissions leader. Since we introduced the LEAF in December 2010, we have sold more than 110,000\* worldwide. Our zero-emission EVs are available to customers on four continents, in 35 different countries. Our share of the global EV market is now 45%—the highest in the industry. Together with our partner Renault, Alliance EV sales account for more than 60% of the total EV market, with more than 66,800 units sold globally in 2013.

Our goal with Autonomous Drive is to replicate our achievements in the EV segment. But this isn't about winning a race. It is about building a "zero-emissions, zero-fatalities" future for society.

Making the dream of autonomous drive vehicles a reality will complement our comprehensive sustainability efforts. For example, we are currently on track to achieve a 90% reduction in CO<sub>2</sub> emissions from new vehicles by 2050, compared to models released in 2000. Beyond internal activities, we are engaged in broad external efforts that support our sustainability goals, including our long-standing membership in the World Business Council for Sustainable Development (WBCSD) and our continued participation in the United Nations Global Compact.

Guided by our corporate vision of Enriching People's Lives, we are committed to delivering the world's most innovative, accessible and environmentally friendly products in the 21st century and beyond. With Autonomous Drive now on the horizon, we are approaching an exciting new era of safe, sustainable mobility—and Nissan is ready to lead the way forward.

Carlos Ghosn

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

\* As of March 2014.

## **NISSAN'S CSR STRATEGIES AND MANAGEMENT**

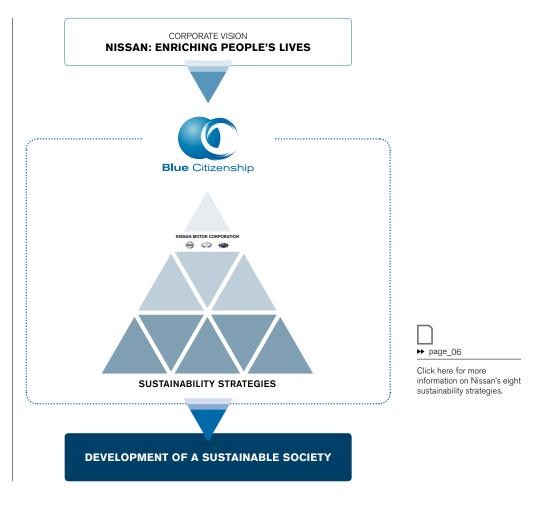
In addition to providing the obvious benefit of growth with sustainable profits, Nissan seeks to contribute to the sustainable development of society. To this end, the company listens carefully to its diverse stakeholders, working with them as it pursues activities that meet society's needs.

## **NISSAN'S CSR VISION**

Guided by the corporate vision of Enriching People's Lives, Nissan seeks to contribute to sustainable societal development through all its activities, globally. 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 of its 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 to create economic value and to actively contribute to the development of a sustainable society.

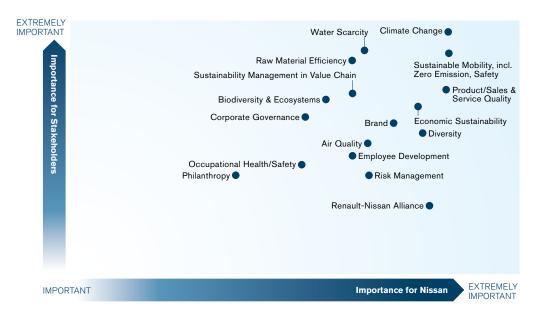
Corporate Vision	Nissan: Enriching People's Lives				
Corporate Mission	Nissan provides unique and innovative automotive products and services that deliver superior measurable values to all stakeholders in alliance with Renault.				
CSR Vision	To be one of the leading sustainable companies in the industry				



## MATERIALITY ASSESSMENT TO ANALYZE SOCIETAL ISSUES

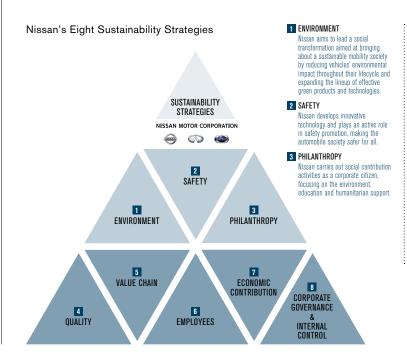
Nissan's strategies to achieve its CSR vision come from the highest levels of the company. Top management discusses key societal themes to identify the priorities Nissan must address as an automobile manufacturer. The company then produces a Materiality Matrix based on materiality assessment of the results of that discussion and analysis of the company's underlying opportunities and challenges. In 2013 the company carried out the first review of societal themes to be addressed. These reviews will take place periodically from fiscal 2014 onward. Through a robust discussion process, Nissan pursues a balance between the sustainable development of society and its own profitable growth.

## Materiality Matrix 2014



## **SUSTAINABILITY STRATEGIES**

Nissan has defined eight sustainability strategies to form its CSR approach. 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 issues involving automobiles 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, the company must also pursue the other five strategies—Quality, Value Chain, Employees, Economic Contribution, and Corporate Governance & Internal Control. By steadily advancing these eight sustainability strategies and being transparent on its progress and challenges, Nissan fulfills its responsibilities to society and builds trust.



#### 4 OUALITY

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

#### 5 VALUE CHAIN

Nissan promotes ethical, environmentally sound actions in all stages of the supply chain.

## 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.

#### 8 CORPORATE GOVERNANCE & Internal Control

Nissan aims to conduct fair, impartia and efficient business activities, having a high degree of transparency and consistency by adhering to the applicable laws and corporate rules.

NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

## **CSR MANAGEMENT**

## Company Organizations for CSR

In fiscal 2011, the CSR Department came under the direct control of Chief Executive Officer Carlos Ghosn. Within the organization, CSR has become a central aspect of corporate management.

In the past, the CSR Steering Committee was responsible for setting goals and confirming progress in the eight sustainability strategy areas, managing CSR activities in a comprehensive way throughout the company. Beginning in fiscal 2013, the Executive Committee, Nissan's top decisionmaking body, defines the overall course to be taken and the measures toward achieving the company's sustainability goals. The Executive Committee includes 10 members directly involved in company management, from the executive vice president level on up. Unlike the CSR Steering Committee, which met just once each year, the Executive Committee convenes monthly, allowing speedy, focused decisions to be reached. For fiscal 2013, Nissan identified future sustainability targets and challenges to address at the Executive Committee meeting in July 2013. Another high-level meeting held in February 2014 confirmed Nissan's materiality priorities. By closely linking CSR actions and business operations, Nissan is pursuing corporate management that consistently aligns the twin goals of sustainable profit and growth for the company and sustainable development for society.

## Nissan's CSR Decision-Making Process



## Nissan's CSR Scorecard

Nissan makes year-round use of the CSR scorecard\* as a fundamental tool for monitoring and reviewing its progress. Its vertical axis lists the eight sustainability strategies to check balances among stakeholders. The horizontal axis, meanwhile, 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, based on equilibrium between the two axes. Each year Nissan publishes the scorecard in this Sustainability Report.

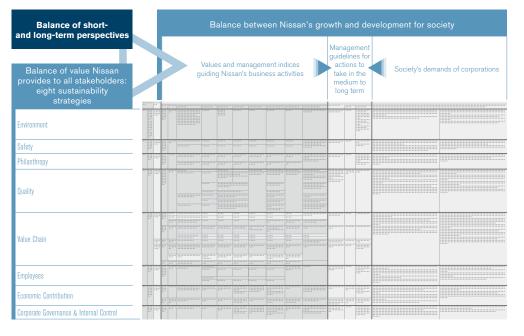
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\* Click below for the latest scorecard's sections on Nissan's eight strategies.

Environment →
Safety →
Philanthropy →
Quality →
Value Chain →
Employees →
Economic
Contribution →

Corporate
Governance &
Internal Control

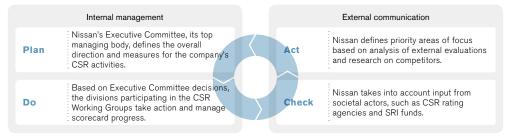
#### Nissan's CSR Scorecard



## 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 with the CSR scorecard. In its actions the company incorporates the views of stakeholders throughout society, as well as analyzing external assessment to reflect it in future plans. In fiscal 2013, Nissan focused on CSR actors' input and external trends in determining the materiality priorities to apply to its business operations.

## PDCA Cycle



## Communicating CSR Activities Internally

In addition to sharing information with the public via the Sustainability Reports and online, 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. A website titled "CSR Headlines," part of WIN (Workforce Integration @ Nissan), the employee intranet system, reports on Nissan's activities and shares a range of general information on CSR.



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 strives to pay 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, website, 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, website, dedicated portalsite					
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, website					
Media	Contact with PR team, press conferences, PR events, press releases, interviews, mailing service, website					



## **PARTICIPATION IN INTERNATIONAL 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.

In order to convey its progress in activities that contribute to fulfilling these 10 principles, Nissan publishes its annual Sustainability Reports on the U.N. Global Compact website.

## The World Business Council for Sustainable Development

Nissan is a member of the World Business Council for Sustainable Development (WBCSD), an international association of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment. The WBCSD provides a forum for its 200 member companies—which represent all business sectors, all continents and a combined revenue of more than \$7 trillion—to share best practices on sustainable development issues and to develop innovative tools that change the status quo.

## 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 multiple guidelines and measures to ensure human rights in its business operations. Nissan will strengthen its human rights initiatives by continuing dialogue with stakeholders including customers, employees, business partners and local communities.

▶▶ website

Click here for more information on the WBCSD.



Click below for more details about Nissan's quidelines.

Nissan Global Code of Conduct

Renault-Nissan CSR Guidelines for Suppliers

Action Against Conflict Minerals



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

Diversity

Internal reporting system

Initiatives at sales companies

Click here for more information on the Global Compact.

## **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.\*

\* Memberships and recognitions are current as of March 2014.

▶ website

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

▶ website

Click here for more information on the RobecoSAM Sustainability Yearbook 2014.

▶▶ website

Click here for more information on the FTSE4Good Index Series.

## 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 2013. Nissan has been a member since the Asia/Pacific Index was established in 2009.



#### RobecoSAM Sustainability Yearbook 2014

RobecoSAM AG (Switzerland) announces its Sustainability Yearbook every January. Nissan was recognized as Bronze 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 semi-annual review announced in September 2013.





## CDP Global 500 Climate Change Report 2013

In the Global 500 Climate Change Report 2013, published by the CDP in September 2013, Nissan was listed in the Climate Disclosure Leadership Index and ranked A in the Climate Performance Leadership Index.



#### Morningstar SRI

Nissan has been selected for inclusion in the 2014 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 second 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.

#### Interbrand's Best Global Green Brands 2013

Nissan ranked 5th in Interbrand's Best Global Green Brands 2013 after placing 21st in 2012. The results were announced in June 2013.

#### Nikkei Environmental Management Survey

Nissan ranked 11th in the manufacturing sector and 3rd among automakers in the 17th Nikkei Environmental Management Survey. Nikkei Inc. announced the results on January 26, 2014, giving Nissan top ratings for its environmentally friendly vehicle initiatives and environmental management systems.

#### Toyo Keizai CSR Ranking

Nissan rose to 3rd from the previous year's 5th in Toyo Keizai Inc.'s 8th CSR Ranking, announced in March 2014.

▶ page\_84

Click here for more information on awards for diversity.

## **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 2013, the Alliance sold a record 8.3 million vehicles, representing about 1 in 10 new cars sold worldwide.\* Our vehicles are marketed under the following brands: Nissan, Infiniti, Datsun, Venucia, Renault, Renault Samsung Motors, Dacia and Lada (AVTOVAZ).

\* Including sales by Russia's AVTOVAZ.



#### The Alliance's Vision

Although it was initially considered a unique arrangement in the late 1990s, the Alliance quickly became a model for similar partnerships in the auto industry. The Alliance itself has entered cooperative relationships with Germany's Daimler AG, China's Dongfeng Motor Corp., India's Ashok Leyland Ltd. and others, and it continues to prove itself as the industry's most enduring and successful partnership. It also has a majority stake in AVTOVAZ, Russia's largest automaker, through a joint venture with Russian state corporation Rostec Corp. (formerly know as Russian Technologies).

The Alliance is based on the rationale that substantial cross-shareholding investments compel each company to act in the financial interest of the other while maintaining individual brand identities and independent corporate cultures. Renault currently has a 43.4% stake in Nissan and Nissan holds a 15.0% stake in Renault. The cross-shareholding arrangement requires mutual trust and respect, as well as a transparent management system focused on speed, accountability and performance.

On March 17, 2014, the Renault-Nissan Alliance announced plans to converge four key functions—engineering, manufacturing & supply-chain management, purchasing and human resources—in order to enhance performance and accelerate synergies. Each unit will be headed by one single leader. By converging these units, the Alliance estimates it will achieve €4.3 billion in synergies in 2016, up from €2.7 billion in 2012.

## **Alliance Objectives**

The Alliance pursues a strategy of profitable growth with three objectives:

- 1 To be recognized by customers as being among the best three automotive groups in the quality and value of its products and services in each region and market segment
- 2 To be among the best three automotive groups in key technologies, each partner being a leader in specific domains of excellence
- To consistently generate a total operating profit among the top three automotive groups in the world, by maintaining a high operating margin and steady growth

▶▶ website

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

The Alliance remains committed to developing synergies through common organizations such as the Renault-Nissan Purchasing Organization (RNPO), joint working groups and shared platforms, components and industrial facilities. The Alliance is also keenly focused on maintaining its clear lead in sustainable transportation.

## Zero-Emission Leadership

The Renault-Nissan Alliance is the only automaker with a wide range of 100% electric vehicles (EVs), which can be charged with purely renewable energy.

In 2013, the Alliance sold 66,809 electric vehicles worldwide, up 52% from the previous year.

The Alliance's worldwide zero-emission market share in 2013 stood at 63%, including Twizy, Renault's two-seater urban commuter. Nissan LEAF was the world's best-selling EV with a market share of 45% in 2013. In Europe, Renault was the leader with a 38.6% share of the EV market.

The Alliance sold a cumulative 134,383 zero-emission vehicles globally from December 2010—when Nissan LEAF went on sale—until the end of 2013, more than all other major automakers combined.

The Alliance is also working on fuel-cell electric vehicles and other future strategies in advanced zero-emission technology.

## **Strategic Cooperations**

The Alliance seeks out strategic alliances with other partners in order to increase economies of scale, to help accelerate growth in new regions and to fund research and development of next-generation powertrains and vehicles, including vehicles that meet or exceed tougher environmental requirements. Today the Alliance operates strategic collaborations with numerous automakers, including Germany's Daimler and China's Dongfeng Motor, and with regional manufacturers such as Ashok Leyland in India.

## Strategic Cooperation with Daimler

In April 2010, the Alliance signed a strategic cooperation agreement with luxury-car maker Daimler AG. The strategic cooperation is strengthened by cross-shareholdings, with Daimler holding a 3.1% share in Renault and Nissan capital and Renault and Nissan holding a 1.55% share in Daimler.

The partnership is managed by a Cooperation Committee which is co-chaired by Carlos Ghosn and Dieter Zetsche and made up of senior executives from the Alliance, Renault, Nissan and Daimler. The Governance Board, which meets nearly every month, ensures the implementation of the agreed projects and makes proposals for new ones. The cooperation is managed for the Alliance by the Renault-Nissan BV (RNBV). Cooperation between the companies has expanded significantly since they joined forces in 2010 and has also become more global in scope.

The first products of the 2010 Daimler and Renault-Nissan strategic cooperation are already on the road: in September 2012, Daimler released its Citan city van, which is based on Renault's Kangoo. The vehicle is produced in Renault's plant in Maubeuge, France, where Renault also produces its Kangoo light commercial vehicle.

The Citan, which accounts for about 25% of total production output in Maubeuge, also features a jointly developed Renault-Daimler 4-cylinder, 1.5-liter diesel engine.

In October 2013, Nissan's premium brand Infiniti launched the Infiniti Q50 sports sedan equipped with a jointly developed Nissan-Daimler 4-cylinder, 2.2-liter diesel engine. A 2-liter gasoline version for the Q50 was unveiled at the Guangzhou motor show in China later that same year.

In addition, Renault and Daimler are also working on the nextgeneration Twingo and four-seat Smart production in Novo Mesto, Slovenia. These small cars are now jointly developed on the basis of a shared architecture, but will remain independent products with an unmistakable brand identity. The cars will be launched in the second half of 2014.

Nissan and Daimler are also working on several bilateral projects, including joint production of Mercedes-Benz 4-cylinder gasoline engines at Nissan's powertrain assembly plant in Decherd, Tennessee.

All partners are keeping an open mind, looking with fresh eyes at all potential new areas of collaboration. At the same time, the Renault-Nissan Alliance and Daimler will continue to study opportunities in areas such as exchanging benchmarks and best practices.

## Strategic Cooperation with Mitsubishi Motors

In 2013, the Alliance announced plans to explore wide-ranging cooperation with Mitsubishi Motors Corp., including shared products, technologies and manufacturing capacity. The decision to explore various projects together came about thanks to Nissan's existing relationship with Mitsubishi. The two companies have a joint venture codeveloping "kei" minicars for both brands in Japan.

As part of the agreement, Nissan and Mitsubishi are discussing the codevelopment of a new small-segment car for the global market, including an electric version. Meanwhile, Renault and Mitsubishi are studying the launch of Mitsubishi-badged sedans for the U.S. market based on Renault vehicles, among other projects.



The increasing global population and the rapid growth of the world economy are connected in complex and diverse ways to the global environment. They also affect the environment in numerous ways. 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, water quality and biodiversity, efficient use of mineral resources, management of chemical substances, waste reduction and recycling. 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 effects of its businesses on the environment to help minimize them throughout its value chain, pursuing needed technologies and processes as well as engaging in communication with society. The company provides customers with innovative products while promoting effective use of energy and resources and 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."



## **SCORECARD**

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.

**ENVIRONMENT** 

FY2013 target achievement rate: 

Achieved 

Mostly Achieved 

Not Achieved

Nissan Priorities	Nissan Objectives (by FY2016)	Progress Indicators (Scope of Application)	FY2011	FY2012	FY2013	Assess- ment	Long-Term Vision
Zero-emission vehicle penetration	Introduce four EVs including Nissan LEAF	Number of models introduced	Development underway	Development underway	Disclosed e-NV200, the second EV model, for European market (March)	0	90% reduction in CO <sub>2</sub> emissions from new vehicles by 2050 (vs. 2000)
	Prepare to introduce fuel-cell electric vehicle (FCEV) into market	Results of initiatives	Development underway	Signed agreement for joint development of common fuel-cell system with Daimler AG and Ford Motor	Development underway	0	
	Take global leadership in supplying batteries for electric-drive	Results of initiatives	Prepared for manufacturing batteries overseas	Battery production started by Nissan North America and Nissan Motor Manufacturing (UK)	Production ongoing	0	
	Help create zero-emission society utilizing EVs and their derivative technologies with partners	Results of initiatives	Unveiled "LEAF to Home" power supply system, promoted other activities	Launched "LEAF to Home" power supply system and promoted adoption in houses, condominiums, other buildings	Based on "LEAF to Home," began "Vehicle-to-Building" test using multiple Nissan LEAFs simultaneously	0	
	Provide energy storage solution with used EV batteries through *4R* business	Results of initiatives	Announced electricity storage system for residences using Nissan LEAF batteries	Promoted use of EV batteries for stationary energy storage system for houses, apartment buildings	Developed world's first high- capacity energy storage system built with used batteries (Japan)	0	
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 15%	Improved by 24.9%	Improved by 31.5%	0	
	Introduce top fuel-efficiency models in various classes	Model introductions	Versa sedan (U.S.) Tiida (China)	Note, Latio (Japan) Altima (North America) Sylphy (China)	DAYZ (Japan) Infiniti QX60 (U.S.) Note, Qashqai (Europe)	0	
	Introduce FF-HEV in C class and above: expand FR-HEV offerings	Model introductions	Development underway	Cima Hybrid, Serena S-Hybrid (Japan)	Skyline (Japan) Infiniti Q50, Pathfinder, Infiniti QX60 (U.S.)	0	
	Promote plug-in hybrid vehicle (P-HEV) development	ote plug-in hybrid vehicle (P-HEV) development Model introductions Developme	Development underway	Development underway	Development underway	0	
	Introduce next-generation CVT globally; expand CVT sales to 20 million cumulative units from 1992	Number of CVT-equipped vehicle sales	Annual total: 2.08 million Cumulative total: 11.08 million	Annual total: 2.28 million Cumulative total: 13.36 million	Annual total: 2.79 million Cumulative total: 16.15 million	0	
	Develop lightweight technologies with structure optimization, new materials and new manufacturing processes	Results of initiatives	Developed the world's first Ultra High Tensile Strength Steel rated at 1.2 gigapascals (GPa)	Used 1.2 gigapascal steel in the Infiniti Q50, achieving weight reduction of about 40 kg	6 models launched in FY2012 and FY2013 achieved the best-in-class vehicle weight	0	
	Contribute to CO₂ reduction with ITS technologies	Results of initiatives	Worked with Beijing Municipal Commission of Transport on dynamic route guidance using IT devices	Worked with Beijing to confirm effectiveness of dynamic route guidance to disperse traffic congestion	Announced results of Beijing dynamic route guidance test: 5.1% decrease in travel time, 7.6% increase in fuel economy	0	

Nissan Priorities	Nissan Objectives (by fiscal FY2016)	Progress Indicators (Scope of Application)	FY2011	FY2012	FY2013	Assess- ment	Long-Term Vision
Corporate carbon footprint minimization	Reduce CO <sub>2</sub> emissions of global corporate activities by 20% (t-CO <sub>2</sub> /vehicle, vs. FY2005)	CO <sub>2</sub> emission reduction rate	Reduced by 15.4%	Reduced by 15.1%	Reduced by 15.4%	0	80% reduction by 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 20.5%	Reduced by 15.2%	Reduced by 21.8%	0	
	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	-	-	Increased by 2.1%	0	
	Reduce by 1%/year in offices (Japan, North America, Europe, China, t-CO <sub>2</sub> /floor area, vs. FY2010)	CO <sub>2</sub> emission reduction rate	Reduced by 4.3%	Increased by 14.4%	Increased by 6.1%	0	
	Reduce by 1%/year in dealers (Japan, t-CO <sub>2</sub> /floor area)	CO <sub>2</sub> emission reduction rate	Reduced by 11.5%	Increased by 1.8%	Increased by 7.1%	0	
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	Promoted activities	0	Reduce ratio of new natural resources per vehicle by 70% (vs. 2010)
	Expand closed-loop recycling scheme with business partners	Results of initiatives	Worked to reduce the steel and aluminum scrap generated during production, collecting and reusing it as material for new vehicles	Continued activities	Continued activities	0	
	Improve ELV recovery rate  - Achieve top-level ELV recovery rate (Japan)  - Promote proper treatment and resource recovery globally	Recovery rate	98.8% (Japan) Efforts underway globally	99.3% (Japan) Efforts underway globally	99.5% (Japan) Efforts underway globally	0	
	Reduce scarce resource usage - Reduce critical metal, rare earth usage - Comply with emission regulations in each region with minimum precious metal usage	Results of initiatives	Promoted development aimed at reducing rare earth usage	Developed and applied a new electric motor to reduce use of rare earth dysprosium by 40% in Nissan LEAF	Promoted development	0	
	Reduce waste 2%/year in Japan and 1%/year worldwide	Waste reduction rate	Reduced by 8.4% (Japan) Reduced by 12.3% globally	Reduced by 10.3% (Japan) Reduced by 3.2% globally	Reduced by 10.9% (Japan) Reduced by 5.5% globally	0	
	Promote management and reduction of water usage at all production sites	Water usage reduction rate	Set water use targets and began activities to reduce usage in China, Mexico, India and Australia	Set targets, started activities to reduce water use in Spain, Egypt and South Africa	Set global target of water use and promoted activities	0	
Environmental management promotion	Enhance and promote environmental management throughout supply chain (consolidated companies, sales companies, suppliers)	Results of initiatives	Revised the Nissan Green Purchasing Guidelines and asked suppliers for compliance	Requested environmental targets and data from suppliers to understand and promote reduction of environmental impact upstream in the supply chain	Continued activities to reduce environmental impact through understanding upstream in the supply chain	0	-
	Promote reduction, substitution, and management of environment-impacting substances	Results of initiatives	Enhanced management of environment-impacting substances to meet REACH targets	Added global policy on environment-impacting substances to the Nissan Green Purchasing Guidelines, distributed it to suppliers	Continued management of environment-impacting substances, creation of well-planned schedule for their reduction and use of alternative substances	0	
	Reduce environmental impact of products with lifecycle assessments (LCAs)	Results of initiatives	Promoted CO <sub>2</sub> assessments in product LCAs	Promoted CO <sub>2</sub> assessments in product LCAs	Obtained TÜV Rheinland certification for LCA methodology	0	

## **KEY FIGURES**

**Carbon footprint** 

Direct greenhouse gas emissions (GHG Protocol Scope 1)

Indirect GHG emissions from electricity, heat, steam consumption (Scope 2)

**Emissions from employee commutes** 

780,970 t-CO<sub>2</sub> 2,622,767 t-CO<sub>2</sub>

426,487 t-CO<sub>2</sub>

Water resource use

30,134,000 m<sup>3</sup>

Total waste produced 172,849 tons



► GRI G4 Indicators
► G4-EN8/G4-EN15/ G4-EN16/G4-EN17/ G4-EN23

▶ page\_118

Click here for detailed information on our environmental data.

## **NISSAN'S APPROACH TO THE ENVIRONMENT**

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" CO2 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 electric vehicles and fuel-cell electric vehicles (EVs and FCEVs) and to promote the use of renewable energy to power these technologies while each country and region moves toward more renewable energy sources.

Nissan is advancing technological development on the basis of this 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, 2 which reduces CO<sub>2</sub> emissions by developing fuel-efficient internal combustion engine technologies and introducing them into the market.

Nissan has also calculated that it needs to reduce CO<sub>2</sub> emissions from its corporate activities by 80% by 2050 compared with levels in 2000. Accordingly, it plans to continue its energy efficiency measures, leverage the power storage ability of lithium-ion batteries and expand its use of renewable energy.

## ▶ page\_27 information on PURE

#### emission efforts.

DRIVE.

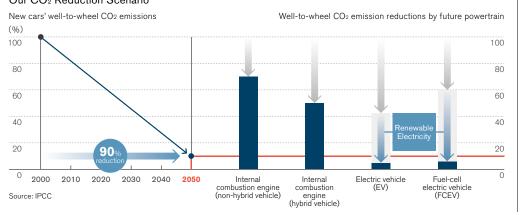
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2 Click here for more

Click here for more

information on our zero-

## Our CO<sub>2</sub> Reduction Scenario



## **FISCAL 2013 PERFORMANCE**

- Cumulative sales of the all-electric Nissan LEAF since its 2010 launch through the end of March 2014 exceeded 110,000 units
- 31.5% improvement in corporate average fuel economy (in Japan, the U.S., Europe and China, vs. fiscal 2005)
- 15.4% reduction in CO<sub>2</sub> emissions from corporate activities (t-CO<sub>2</sub>/vehicle, vs. fiscal 2005)
- CO<sub>2</sub> emissions in each phase of the value chain: production 2,872 kton, logistics 1,679 kton, use of Nissan vehicles 127,312 kton, employee commutes 426 kton\*

## **FUTURE MEASURES**

- Launch e-NV200, Nissan's second mass-produced EV, in Europe and Japan; promote activities to popularize zero-emission vehicles
- Launch other fuel-efficient vehicles in market
- Promote activities to raise usage rate of renewable energy in global corporate activities

## ▶ page\_139

CO2 emissions of 217 kton from consolidated employee commutes in Japan, the U.S. and Europe have received third-party certification. For details. please refer to the environmental data at the end of this report.

#### ▶▶ website

Click here for more information on Nissan Green Program 2016.

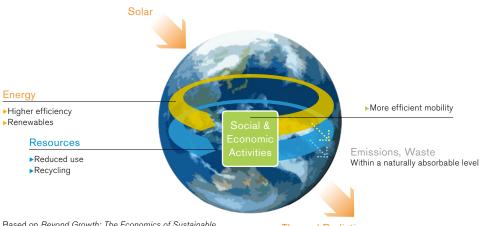
## **NISSAN GREEN PROGRAM 2016**

Nissan's ultimate goal is to limit the environmental impact and resource consumption of its corporate activities, and of its vehicles during their entire lifecycle, to a level at which the planet can naturally sustain itself. To achieve this, Nissan launched its new six-year environmental action plan, Nissan Green Program 2016 (NGP2016), in fiscal 2011. NGP2016 is based on thorough materiality assessments focusing on factors with critical impact on the company's business. 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 of sources for and efficient use and recycling of energy and resources, and to promote and widen 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 companywide: zero-emission vehicle penetration, fuel-efficient vehicle expansion, corporate carbon footprint minimization and new natural resource use minimization.

Thanks to the Nissan Green Program activities, the company forecasts that CO<sub>2</sub> 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

Thermal Radiation

## **COMPANY ORGANIZATIONS FOR THE ENVIRONMENT**

To achieve the NGP2016 goals, Nissan has created a global framework for environmental management and is setting targets and organically implementing action plans in all areas of its activity, from production and technical 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 Environment Management Committee (G-EMC), comprising corporate officers chosen depending on the issues being discussed, meets twice annually to determine overall policies and the content of reports to be put before the Board of Directors. The Environmental Planning Department, part of the Corporate Planning and Business Development Division, was launched in 2007 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 (E-EMC) was set up in 2012, followed by the Japanese Environmental Management Committee (J-EMC), the American Environmental Management Committee (NA-EMC) and the Chinese Environmental Management Committee (DFL-EMC) in 2013. These groups report to regional management committees and cooperate with the Environmental Planning Department while reporting to the G-EMC.

Nissan's strategy is built on the concept of listening to the voices of society and identifying the seeds of both opportunity and risk. 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.

#### DOMESTE

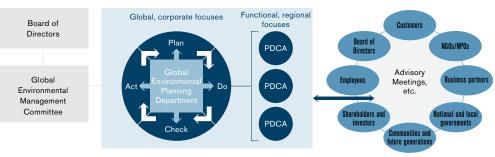
## Nissan's Framework for Global Environment Management



▶ page\_37

Click here for more information on Nissan as a sincere eco-innovator.

## **Environment Management Organization**



**▶** page\_37

Click here for more information on our environmental management promotion.

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

## **▶** page\_119

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

## 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 the 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, taking them into consideration as it develops and implements environmental strategies.

As one example, members of Nissan's Board of Directors hold annual Advisory 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.

#### **Materiality Analysis**

To reduce environmental impact, countries around the globe implement various regulations that affect the automotive industry in areas like  $CO_2$  and other exhaust emissions, fuel efficiency, noise, material resources, water, chemical substances and recycling. These regulations are becoming more stringent year by year. To meet these tougher regulations and to respond to society's demands, Nissan uses materiality assessments\* to analyze potential opportunities and risks. The company identifies those issues viewed by both Nissan and stakeholders as important, sets necessary targets for tackling them effectively and works them into its environmental strategy.

## **ZERO-EMISSION VEHICLE PENETRATION**

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

In 2010, Nissan began sales of the world's first mass-produced 100% electric vehicle, Nissan LEAF. In May 2014 Nissan expanded its leadership in zero-emission mobility into the LCV segment with the start of production of the e-NV200, the company's second all-electric vehicle, for the European market. The company also plans to begin sales of this model in Japan in fiscal 2014. Together with Renault, which already offers four EV models, Nissan will maintain its dominant position in the EV market.

## Nissan LEAF Sales Hit 100,000 in January 2014

Nissan LEAF runs on a lithium-ion battery and electric motor, and it emits no  $CO_2$  or other exhaust emissions during operation. The EV 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 this has earned Nissan LEAF high marks from drivers since its debut in 2010.

Nissan LEAF is now sold in 35 countries on four continents, with sales increasing every year. In January 2014, total sales worldwide hit 100,000 vehicles, making Nissan LEAF the best-selling EV in the world, with a 45% share of the global EV market. As of the end of March 2014, total sales had cleared the 110,000 mark. While the vehicles' low environmental impact is attractive, consumer awareness of other characteristics of EVs, such as the low charging costs and their superior acceleration and steering performance, is likely to have been a factor in these strong sales.

Nissan LEAF has also received praise for its ease of use. Advanced IT systems allow the driver to control some functions remotely, via a smartphone or other device, and they can help the driver find nearby charging stations and identify the most energy-efficient routes.

Nissan has worked with local governments, corporations and other entities to construct vehicle-charging and other infrastructure and encourage the 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 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 achieve a low-carbon society.



## Nissan LEAF Top Seller in Norway in October 2013

In October 2013, Nissan LEAF was the top-selling model among all vehicles in Norway, including gasoline-powered and hybrid vehicles. Nissan LEAF accounted for around 6% of all sales.

Even within Europe, which leads the world in enacting environmental policies, Norway is known for its strong environmental stance. The country is proactively promoting uptake of EVs through incentives including generous subsidies, exemption from value added tax (VAT) and road tolls, free charging and parking. The country plays a central role in the European EV market. Norwegian customers have favorably assessed the region-specific Nordic pack including battery heater, which is adapted to the harsh cold, as well as Nissan LEAF's excellent all-electric performance.

▶ page\_40

\* Click here for more information on the lifecycle assessment on Nissan LEAF. **NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014** 

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

The e-NV200—Nissan's second mass-produced all-electric vehicle—is an innovative entrant to the compact van market that demonstrates the company's determination to maintain its leadership of the zero-emission market. The drivetrain powering the vehicle's excellent performance is based on components from the Nissan LEAF. The e-NV200 produces no exhaust emissions or noise pollution, like Nissan LEAF, and is a practical, versatile vehicle for transporting people or goods.

The e-NV200's maximum driving range of 170 km (NEDC\* mode) is greater than the average 100 km daily driving distance of around half of the business users who operate this class of van. With payload and cargo areas the same size as those in Nissan's multipurpose NV200 van, it will also appeal to private users with larger groups to transport.

As part of a "real-world" test drive program, companies including FedEx Express, Coca-Cola Central Japan, DHL Japan, IKEA, British Gas, Électricité de France and Japan Post, as well as local governments, used pre-production models as part of their fleets. Nissan used feedback from drivers and fleet managers to fine-tune the e-NV200 before beginning series production.

Production of the e-NV200 began in May 2014 at Nissan's Barcelona Plant in Spain.





The all-electric e-NV200: ideal for transporting people or goods.

## Commercial Viability of Fuel-Cell Electric Vehicles

Fuel-cell electric vehicles (FCEVs) are another type of zero-emission vehicle producing no CO<sub>2</sub> or other emissions. Powered by electricity generated from hydrogen and oxygen, they 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 its EV development, as well as high-pressure gas storage technologies from its compressed natural gas vehicles (CNGVs).

In 2011, the company announced plans to work with 12 other companies to develop hydrogen supply infrastructure in Japan in preparation for the launch of FCEVs.

Nissan also unveiled the next-generation fuel-cell stack for its FCEVs, featuring dramatically improved power density<sup>\*1</sup> and reduced use of platinum and variation of parts\*<sup>2</sup> to achieve major size and cost reductions.\*<sup>3</sup>

In January 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. The goal of the collaboration is to jointly develop an FCEV system while reducing investment costs associated with the engineering of the technology, lowering manufacturing costs through economies of scale and integrating the companies' knowledge. This will help the company launch the world's first affordable, mass-market FCEVs as early as 2017.

## Pursuing a Zero-Emission Society

The widespread use of zero-emission vehicles, which produce no  $CO_2$  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 more than 100 zero-emission partnerships with national and local governments, electric power companies and other organizations.

- Power density is 2.5 kW per liter, or 2.5 times more than for the Nissandeveloped 2005 model (according to Nissan calculations).
- Platinum usage and number of parts were both reduced to 1/4 of the 2005 levels (according to Nissan calculations).
- Compared to the 2005 model, fuel-stack size is less than 1/2 and cost is 1/6 (according to Nissan calculations).

\* The New European Driving Cycle (NEDC) mode uses a different measuring method from Japan's JC08 mode. 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, in-house manufacture and sale of quick-charging equipment, construction of vehicle-charging 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 proposes the new values that they offer 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.

## Nissan and Bhutan Forge Partnership for EV Shift

In February 2014, Nissan pledged its support for the Kingdom of Bhutan's transition to an electric vehicle fleet. The company is backing the country's groundbreaking environmental vision of becoming a zero-emission nation with its abundant, clean energy. Bhutan, at the foot of the Himalayas, can meet its energy needs through the use of hydropower and has positioned EVs as a key strategy in achieving its vision. If the use of EVs becomes standard in Thimphu, the capital, which has a population of more than 100,000, it will be possible to power all of the city's transportation using clean energy, making the capital a "clean-electric" city. To achieve this, Nissan is discussing delivery of Nissan LEAFs for use in the government fleet and as taxis, as well as the supply of quick chargers to provide the necessary infrastructure nationwide.



Nissan LEAF in Thimphu, Bhutan.

## 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 enhancing charging infrastructure by increasing the number of Japanese Nissan dealerships with quick chargers from the current 800.

Quick chargers, which can charge batteries from zero 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. In the following year, the company improved them to make the chargers quieter and the connector easier to use, as well as enabling on-the-spot payment.

In July 2013, Nissan reached an agreement with Toyota Motor Corporation, Honda Motor Co., Ltd. and Mitsubishi Motors Corporation to collaborate on installation of chargers for electric-powered vehicles (including EVs and plug-in hybrid vehicles) and creation of a charging network service that offers more convenience to drivers in Japan. Until now, the four automakers had pursued individual efforts in this area; recognition of their common need to swiftly develop charging infrastructure facilities prompted this joint project. The companies are presently studying the construction of a charging network service with 8,000 normal chargers and 4,000 quick chargers that lets drivers charge their vehicles anywhere with the same card.

Nissan is also pressing forward with infrastructure initiatives overseas. In the United States, the company is cooperating with local dealerships, federal and local government organizations, power companies and other groups to promote the installation of quick chargers for EVs. It is also taking part in the U.S. Department of Energy's Workplace Charging Challenge,\* announced in January 2013, by installing charging stations at its business locations. The program aims to support the spread of EVs by making it possible for drivers to charge vehicles at their workplaces as well as at home. In addition, since January 2013, Nissan has installed more than 150 quick chargers at authorized Nissan LEAF dealers.

In Europe, too, Nissan is focusing efforts on infrastructure by working with companies in the energy industry and others to install more than 1,000 quick chargers compliant with the CHAdeMO standard.

## Nissan LEAF: Contributing to Realization of Smart Grids

Nissan LEAF can make possible electricity supply to households through the Power Control System. The "LEAF to Home" power supply system lets Nissan LEAF 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 new value. The connector has been tested in use worldwide, conforms to the CHAdeMO protocol and ensures a high level of versatility, stability and reliability.

In July 2013, Nissan began a test of "Vehicle-to-Building," which is based on "LEAF to Home," at the Nissan Advanced Technology Center (NATC) in Atsugi, Kanagawa Prefecture. "Vehicle-to-Building" allows up to six Nissan LEAFs to be connected and supply power to office buildings, condominiums or other buildings. Users can save electricity costs by drawing on this system at times of peak demand. In tests at the center, the system achieved an approximately 2.5% reduction of electrical power use during peak hours. Nissan plans to identify issues with operation of the system and test it outside the company.



"Vehicle-to-Building" test at NATC.

Launched as a part of the EV Everywhere Grand Challenge initiative announced by President Barack Obama in March 2012.

#### Overseas Production of Lithium-Ion Batteries

In Japan, Nissan and NEC Corporation's joint-venture company Automotive Energy Supply Corporation (AESC) produces lithium-ion batteries for Nissan LEAF at its Zama facility. The facility assembles modules made up of four cells, which are put together into battery packs made up of 48 modules at Nissan's Oppama Plant and then fitted into vehicles.

Nissan also manufactures 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, it gives the driver 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.

In fiscal 2011, with cooperation from Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Nissan began driving trials together with the city of Yokohama and other local bodies to conduct tests and surveys. Following MLIT's January 2013 announcement of an authorization system for use of ultracompact vehicles on public roads, Nissan is currently testing vehicles in 11 areas. For example, from July 2013 to March 2014 the company implemented a rental car service on the island of Teshima in Tonosho, Kagawa Prefecture, using six Nissan New Mobility Concept vehicles. By supplying vehicles with no exhaust emissions,

Nissan aimed to boost the economy of Teshima, for which tourism is the major industry, without impacting the local environment.

In October 2013, Nissan launched "Choimobi Yokohama," a one-way car-sharing service using the Nissan New Mobility Concept in Yokohama, Kanagawa Prefecture. Users are able to drop off cars at a different location from where they began their journey in this program, which is being used to study how ultracompact mobility can improve life in urban areas. The service is easing traffic congestion and offering new and improved access to tourist areas and communities.

Nissan works together with local bodies, corporations and other groups to carry out activities like these with the objective of finding new uses for EVs, as well as to improve traffic flows and to consider alternative visions for the communities of tomorrow.



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

#### Joint Venture to Promote Second-Life Use for Batteries

The performance of the lithium-ion batteries used in Nissan's EVs is so high that they retain capacity after the useful lifetime 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 Corp. 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 started sales of them for houses and apartment buildings. The systems have already been installed in Park Tower Shinonome, a 585-unit residential structure built by Mitsui Fudosan Residential Co., Ltd. in Tokyo, and sold for Smart Solabo, a "smart house" designed by Sumitomo Forestry Co., Ltd.

In February 2014, 4R Energy developed the world's first\* high-capacity energy storage system built with used batteries. With support from Japan's Ministry of the Environment, the system, which includes 16 used Nissan LEAF lithium-ion batteries, is being used in a three-year experiment in Osaka's Konohana Ward.

\* According to 4R Energy Corporation.



Battery module structure will be redesigned to create new packages that satisfy the varying voltage or capacity needs of customers.



Used batteries can be recycled to recover useful resources.

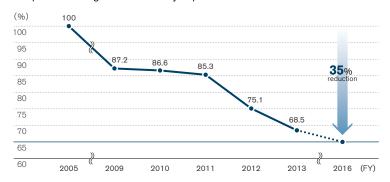
## **FUEL-EFFICIENT VEHICLE EXPANSION**

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.

## Corporate Average Fuel Efficiency Improvement



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). The company's result in fiscal 2013 was 31.5% improvement from the fiscal 2005 level.

## 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.

For example, by downsizing a conventional inline 4-cylinder, 1.5-liter engine to a 3-cylinder, 1.2-liter engine with a supercharger, Nissan boosted fuel efficiency while maintaining the performance of the larger engine. Similarly, replacing a V-type 6-cylinder, 3.5-liter engine with an inline 4-cylinder, 2.5-liter engine with a supercharger increased engine efficiency by up to 12%.

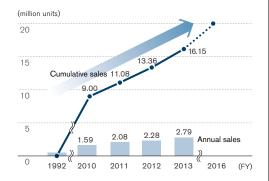
Further, Nissan is working steadily to improve engines by refining existing technologies, such as giving cylinder interiors mirrorlike smoothness to reduce friction and improving combustion efficiency through exhaust gas recirculation.

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 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 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).

Our vehicles achieving class-leading fuel efficiency at their launches during fiscal 2013 with these technologies were the DAYZ in the Japanese market, the Infiniti QX60 in the U.S. market and the Note and Qashqai in the European market.\*

Nissan's goal is to ship 20 million CVT-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 2.79 million CVT vehicles in fiscal 2013, bringing the cumulative total to 16.15 million.

#### Number of CVT-Equipped Units Sold



## A Broader Lineup of Hybrid Vehicles

Hybrid vehicles, which run on a combination of a gasoline-powered engine and an electric motor, can allow 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.

In fiscal 2010, the Nissan Group launched its first vehicles equipped with an original hybrid system, the Fuga in Japan and the Infiniti M in the European market. The company further enhanced this system to increase fuel efficiency and responsiveness before installing it in two rear-wheel-drive vehicles, the Skyline and the Infiniti Q50, in fiscal 2013.

Nissan is also expanding use of its hybrid system for front-wheel-drive vehicles. The extremely compact system is combined with Xtronic transmission in the fiscal 2013 Pathfinder and Infiniti QX60.

A simple, compact hybrid system is onboard the Serena S-Hybrid, launched in 2012. The system includes an auxiliary motor with enhanced energy regeneration capacity and power output, as well as a sub-battery added in the engine room to boost storage capacity.





The Skyline uses Nissan's hybrid system (left).

 DAYZ (29.2 km/L, JC08 mode): wagon-type kei minicars with a height of 1,550 mm or more
 Infiniti OX60 (hybrid model, 26 MPG fuel

All figures as of time of sale.

economy combined city/ highway driving): 7-passenger in the Ward's 2013 Luxury Large SUV Segment — Note (4.3L/100km with

the NEDC combined cycle): B-MPV segment petrol model
— Qashqai (5.6L/100km for petrol, 3.8L/100km for diesel on the NEDC combined cycle): the C-crossover segment petrol and diesel models

manual transmission on

## Progress in Plug-in Hybrid Vehicles

Plug-in hybrid electric vehicles (plug-in HEVs) have batteries that are recharged with power generated during gasoline-powered driving or from external power sources. They are capable of running on motors similar to those of electric vehicles. Nissan is developing plug-in HEVs with a view to an early 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, it is reducing the thickness of components to optimize structure and using lightweight foamed materials for internal component resins.

Nissan is seeking weight reduction in steel parts and promoting the use of Advanced High Tensile Strength Steel (AHSS). In fiscal 2013, Nissan used 1.2 gigapascal (GPa) Ultra High Tensile Strength Steel with High Formability in its Skyline and Infiniti Q50. In combination with other measures, this achieved a total weight reduction of about 40 kg. This type of steel enables considerable weight reduction by remaining strong even when thin. Its greater elongation through an optimal combination of materials offers high formability, and it can be used in vehicle parts with highly complex shapes. Employing 1.2 GPa Ultra High Tensile Strength Steel with High Formability allows usage of less material per vehicle produced, all without requiring major modification to existing production lines. This results in a reduction in total cost per unit. Nissan will expand the use of AHSS up to 25% of the vehicle parts (measured by weight) installed in its new production models starting in 2017.

Through these initiatives, in addition to the above two models, the Altima and three other Nissan models launched in fiscal 2012 and 2013 led their class for vehicle weight (at time of sale, based on Nissan research).

## Reducing Traffic Congestion 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 actively working to create infrastructure that will help to improve the traffic environment. Intelligent Transport Systems (ITS) are a particularly important part of its efforts, and the company is collaborating with others in a variety of industries to craft solutions to tough problems like road congestion that automakers cannot tackle on their own.

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%.

Nissan will apply the results of these experiments as it strives to improve urban environments and air quality.

Fuel consumption is calculated by Chinese standards (L/100km). The results calculated by Japanese standards (km/L) are 8.3% by DRGS and 7.4% by EMS.

## **CORPORATE CARBON FOOTPRINT MINIMIZATION**

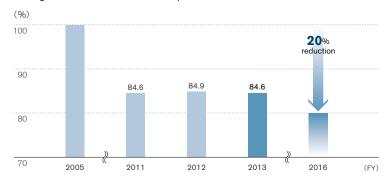
In a world often said to be carbon-constrained, reducing CO<sub>2</sub> emissions is a task to be tackled by all companies. Nissan is improving energy efficiency and promoting renewable energy adoption to reduce CO<sub>2</sub> emissions.

#### A 20% Emission Reduction from Corporate Activities

By fiscal 2016, Nissan aims to reduce the CO<sub>2</sub> emissions associated with its corporate activities by 20% globally from the level in fiscal 2005, as measured by the index of "CO<sub>2</sub> 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 dealerships 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. The result in fiscal 2013 was a15.4% reduction from the fiscal 2005 t-CO<sub>2</sub>/vehicle level.

To reach its  $CO_2$  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

## Falling Global Emissions from Corporate Activities



renewable energy, considering the 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 of the  $CO_2$  emissions in the manufacturing process come from the consumption of energy generated with fossil fuels. Nissan engages in a variety of energy-saving activities in the manufacturing process in pursuit of the lowest energy consumption and  $CO_2$  emissions of any automobile manufacturer.

In production technology, the company is introducing highly efficient equipment, improving manufacturing techniques and adopting energy-saving 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.

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.

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



## Oven process

Preparation Electrocoating

Reduces  $CO_2$  emissions by applying Primer and Topcoat (base coat and clear coat) layers in succession, combining two processes (1 and 2 in the upper diagram) into one (1 in the lower diagram).

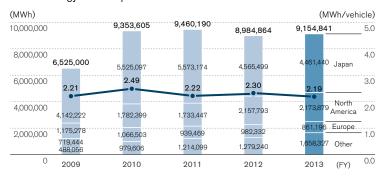
The three-wet paint process adopted by Nissan removes the need to bake in between the primer layers and the topcoat layers. Instead, the layers are applied successively before baking, achieving a reduction in CO<sub>2</sub> emissions of more than 30%, according to Nissan calculations. In 2013, the company 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 plants, the company was able to adopt the three-wet process with no shutdown of production lines and successfully shorten total production time.

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) surveys energy loss at the plants and proposes new energy-saving countermeasures that will contribute to an annual reduction in CO<sub>2</sub> emissions of 30,000 tons, according to Nissan calculations. A NESCO team was established for Japan in 2003, and teams for Europe, North America and China in 2013.

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 Aguascalientes Plant in Mexico proactively uses energy generated from biomass gas and wind power, achieving a renewable energy usage rate of 50% in 2013. In addition, at the Zama Operation Center in Japan Nissan 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.

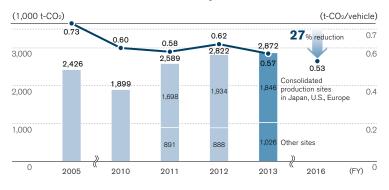
With these activities, Nissan has set a target of reducing CO<sub>2</sub> emissions by 27% below the fiscal 2005 level by fiscal 2016 at all of its production sites, as measured by the index of "CO<sub>2</sub> emissions per vehicle" (total emissions generated from global Nissan vehicle manufacturing sites divided by the total Nissan vehicle production volume). In fiscal 2013, CO<sub>2</sub> emissions per global vehicle were approximately 0.57 tons, a reduction of 21.8% from the fiscal 2005 level.

## Global Energy Consumption



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

## Global CO<sub>2</sub> Emissions from Manufacturing Activities



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

#### ▶ page 139

\* CO<sub>2</sub> emissions of 1,846 kton from Japan, the United States and Europe have received third-party certification. For details, please refer to the environmental data at the end of this report.

## Lowest-Environmental-Impact Plant Begins Operations in Brazil

In February 2014, the Resende Plant in the state of Rio de Janeiro, Brazil, began operations. It has the lowest environmental impact of any plant in the Nissan Group. Hydropower provides around 80% of Brazil's electricity, making it an ideal country for sustainable manufacturing practices. Nissan has adopted the three-wet paint process and other cutting-edge production technologies at the Resende Plant, reducing CO<sub>2</sub> emissions during the manufacturing process.

Around the facility, a "Green Belt" will be built with 9,000 plants, helping to neutralize CO<sub>2</sub> emissions while also reducing noise levels for the surrounding environment. Wetlands have been created within the Green Belt to contribute to maintaining the balance of the local ecosystem.

The plant's consideration for the environment is not limited to its emission reductions. Waste products are carefully separated in a plan aiming to achieve 100% recycling of materials. Nissan has also set targets to manage water usage in the production process.

Nissan's environmentally friendly Resende Plant produces the March for customers in the rapidly expanding Brazilian market.



The new Resende Plant, to be surrounded by a "Green Belt" that helps absorb CO<sub>2</sub> and reduces noise levels.

## 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 throughout the company, including at its overseas manufacturing sites—has been increasing 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.

Company 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 the area of 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 93.8% in fiscal 2013.

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 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 energy-efficient vessels for sea shipments of our vehicles. By 2013 the fleet had grown to include four eco-ships.

▶▶ website

Click here for more information on Nissan's eco-ships.

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. While expanding its global logistics operations, Nissan is increasing efficiency and implementing a modal shift in transportation targeting a 6% reduction in  $CO_2$  emissions by fiscal 2016 from the fiscal 2005 level, as measured by the index of " $CO_2$  emissions per vehicle". In fiscal 2013  $CO_2$  emissions per global vehicle were approximately 0.42 tons, an increase of 2.1% 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. In all four of these markets the aim is to reduce emissions 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 highefficiency 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 Power Producers & Suppliers (PPS) system. Since April 2013, approximately 7,700 kW of energy has been supplied to four Japanese business locations\* including our Global Headquarters. About 20% of this energy is renewable. In October 2013 the company also began sourcing approximately 4,500 kW of energy for 66 sales outlets run by Kanagawa Nissan Co., Ltd. Nissan will continue expanding its reliance on

clean energy through the PPS system with the goal of increasing renewable energy usage at its Japanese business locations from the current level of 0.4% to 2.1% by fiscal 2016.

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

Global Headquarters, Sagamihara Parts Center, Nissan Education Center and Customer Service Center (all in Kanagawa Prefecture).

## **NEW NATURAL RESOURCE USE MINIMIZATION**

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 predictions 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.

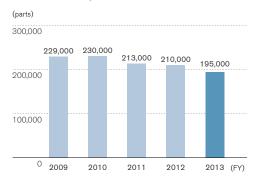
Nissan is working to reduce the steel and aluminum scrap left over in the manufacturing process. The company is also working with business partners to collect and reuse this scrap as material for new vehicles. End-of-life aluminum wheel rims are also collected for recycling. In fiscal 2013, Nissan collected about 2,700 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 Nissan LEAF and many other new vehicles. Exchanged bumpers collected from dealerships are being recycled as materials for under covers and other components. In fiscal 2013, Nissan collected about 195,000 pieces of bumpers.

## Closed-Loop Recycling



## Recovered Bumpers



## 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 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.\*

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 recoverability rate for its ELVs in Japan has been 95% or greater since fiscal 2006 and the recoverability rate for fiscal 2013 was 99.5%.

## 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 Nissan LEAF. The motor is only the first step in the process to limit the use of rare earth elements. Nissan plans to adopt the reduced-Dy motor for its hybrid vehicles, with 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. Its efforts have paid off. In Japan, since fiscal 2010 the company 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 Aguascalientes Plant achieved this in 2011. Nissan is working to bring this rate to an industry-leading level in each region of the globe.

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 as well. These are foldable and can be returned for reuse. Nissan has also been working with its Alliance partner Renault to expand the 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.\*

▶ page\_126

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

"Calculated based on 1998 Japan Automobile Manufacturers Association definition and calculation guidelines (in Japan) and ISO 22628 (in Europe).

#### ▶ website

Click here for more information on Nissan Green Parts.

#### ▶ page\_123

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

#### 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.

#### Water-Use Management

As the global population grows, water use increases and the need for water resources becomes more serious. 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 carried out water usage surveys at each of its plants and developed an index for assessing future water risks. The company sets targets based on the level of risk as it works to reduce water usage.

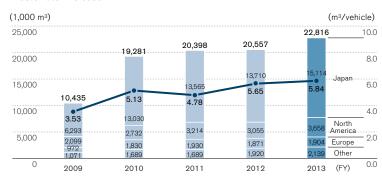
Nissan is also working to reduce water usage at its Global Headquarters by processing rainwater and wastewater from kitchens and other sources to use for flushing toilets and watering some plants.

#### Cleaner Effluent Through Wastewater Treatment

Nissan thoroughly processes wastewater and reuses water within its operations to reduce water usage. At the Chennai Plant in India, processed water is reused in a closed-loop recycling system rather than discharged. Wastewater from the company's Aguascalientes Plant in Mexico is used to maintain greenery on the site, with no off-site 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.

#### Wastewater Release



#### **ENVIRONMENTAL MANAGEMENT PROMOTION**

Nissan is introducing environmental management systems at all its operations sites worldwide. It is also working with consolidated affiliates, sales companies and suppliers to reduce environmental impact during all stages of the supply chain.

#### Improving Environmental Management

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, acquired integrated ISO 14001 certification for environmental management systems. The company has appointed an environmental manager 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 manager for the entire company are cascaded 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 being 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 manager twice a year (once during the management review conference) so that the company can decide on improvements that are needed.

To confirm that this 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 aims to become a "sincere eco-innovator," taking steps to help the natural environment by reducing its business impact in real-world terms and providing customers with innovative products that contribute to the development of a sustainable mobility society. In order to achieve this goal, Nissan has introduced "QCT-E," adding an environmental component to the traditional QCT indices of quality, cost and time. The company has also crafted a global environmental management policy, setting targets for environmental performance in all areas of its business.

Under the 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 sustained 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 the management of hazardous materials, is provided 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 in order to deepen their understanding of environmental issues surrounding the auto industry, as well as the substance of the NGP2016 program. 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

\* Nissan publishes a bimonthly newsletter, printing 60,000 copies that are distributed to retired as well as current employees. 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 through fiscal 2016. 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  $CO_2$  emissions 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. An Energy Efficiency Contest is also conducted in some facilities during February, the officially designated energy conservation month in Japan. These programs keep employees motivated to participate in environmental activities.

Nissan uses various methods to reward employees for their contributions toward environmental improvement activities. One is inclusion of these activities in the "commit 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 thank-you cards 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 being undertaken by each company.

#### Working with Sales Companies

Nissan's sales companies 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 sales companies every six months, in addition to regular annual reviews and certification renewal audits carried out every three years by Nissan Motor Co. As of the end of March 2014, 2,700 dealership outlets of 158 sales companies, including parts dealers, have been certified under the system.

Nissan conducts an annual survey of its sales companies in Japan, collecting comments and requests regarding Nissan's environment-friendly vehicles and other environment-related initiatives. The findings are shared with the presidents of sales companies and incorporated into the PDCA cycle involving Nissan and all sales companies, which is used to guide actions toward improved performance.

#### Working with Suppliers

The purchasing divisions of Nissan and Renault carry out supply-chain management\* in line with *The Renault-Nissan Purchasing Way*, the *Renault-Nissan CSR Guidelines for Suppliers* and, in the environmental aspect, the Nissan Green Purchasing Guidelines.

Nissan works with its suppliers to understand and reduce the environmental impact of upstream processes in the supply chain. The company has a dedicated website to gather information each year from suppliers on their environmental targets, CO<sub>2</sub> emission levels and energy use, as well as their management of environmentally hazardous substances, recycling of resources and water-conservation efforts. There are also briefing sessions on NGP2016 for suppliers where Nissan fully shares its targets, action plans and understanding of what constitutes environmental impact. In fiscal 2013, around 1,200 suppliers took part in sessions in North America, Europe, Asia and other regions.

#### **▶** page\_71

\* Click here for more information on supply-chain management.

Website Website

\* Click here for more information on Nissan Power 88.

# 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.

#### Disclosure of Environment-Related Information

Companies today are being called upon to disclose a wide range of information about how they are managing risks 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 the 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's Tough Voluntary Standards

Stricter controls on environment-impacting substances are being implemented in countries around the world. Examples include the European ELV Directive and the European Commission's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation, which went into force in June 2007. To help minimize the potential release of formaldehyde, toluene and other volatile organic compounds (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 became unified global standards for Nissan, restricting environment-impacting substances to a stricter degree than the domestic laws of the countries where it operates.

Based on this policy, 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 all new vehicles (excluding OEM vehicles) launched globally since July 2007. Nissan is registered and submits reports according to REACH 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. To control VOCs 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 address changes in the substances of very high concern (SVHC) and substances requiring authorization for use, as defined by the REACH Regulation and in the Global Automotive Declarable Substances List (GADSL), prepared by a global team made up of auto manufacturers, parts suppliers and materials manufacturers.

▶ page\_136

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

#### 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.

The company's calculations show that over its lifecycle Nissan LEAF produces  $CO_2$  emissions up to 40% lower than gasoline-powered vehicles of the same class. In 2010, this assessment was certified by a third-party LCA organization, the Japan Environmental Management Association for Industry.

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 will base future LCAs for new vehicles on its certified methodology. The company will also continue working to lower its vehicles' environmental impact by adopting new technology and more efficient processes in manufacturing, aiming for further CO<sub>2</sub> emission reductions over the lifecycle of its new vehicles.

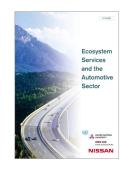
#### TÜV Rheinland certificate



#### Protecting the Air, Water, Soil and Biodiversity

The United Nations Millennium Ecosystem Assessment report issued in 2005 concluded that the 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 of time 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 the 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, reevaluating 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.



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

<sup>2</sup> Click here for more information on "Ecosystem Services and the Automotive Sector."

- Automatically collected by the Nissan Carwings Data Center through vehicles' onboard communication units. Offset CO<sub>2</sub> emissions are calculated from distances using Domestic Clean Development Mechanism standards.
- approved at the 32nd meeting of the Domestic Credit Certification Committee under the Domestic Clean Development Mechanism, an emission reduction certification mechanism managed by the Ministry of Economy, Trade and Industry, the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries in Japan.

#### ▶ page\_135

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.

# FOREST CONSERVATION THROUGH THE NISSAN ZERO EMISSION FUND

In 2012, Nissan launched the Nissan Zero Emission Fund, based on CO<sub>2</sub> emissions offset through Nissan LEAF usage. The fund calculates annual offset CO<sub>2</sub> emissions from the distance<sup>-1</sup> driven by individual customers and the average CO<sub>2</sub> emissions for gasoline-powered vehicles. The offsets are then sold to the Green Investment Promotion Organization and the profits used to install quick chargers for EVs and to conserve forests.

In fiscal 2012, 1,710 tons  $^\circ$  of CO $_2$  offset credits were sold for ¥2.66 million. Nissan used part of this money to conserve around 16,000 m $^\circ$  of forests, roughly equivalent to the area of 60 tennis courts, and another portion was used for managing the Zero Emission Fund. Going forward, the fund will continue to contribute to CO $_2$  emission reductions and the spread of EVs.

#### **Cleaner Exhaust Emissions**

Nissan proactively sets strict environmental goals and targets, pursuing 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 emissions regulations in each country as quickly as possible. 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, <sup>2</sup> was the first gasoline-powered vehicle in the world to receive Partial Zero Emissions Vehicle (PZEV) certification <sup>3</sup> 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. 7

- 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 50% less nitrogen oxide (NOx) and nonmethane hydrocarbon (NMHC) than the 2005 emission standards level.
- 5 SU-LEV: Super Ultra-Low Emission Vehicles produce 75% less emissions than the 2005 emission standards level.
- 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\_51

Olick here for more information on Nissan's ITS initiatives. NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

#### 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-fourth 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 its 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 the 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 the Aguascalientes Plant 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.

# **Messages from Our Stakeholders**

When ENER-G entered Mexico approximately 10 years ago, we were purely looking at carbon destruction opportunities under the Clean Development Mechanism of the Kyoto Protocol. With the changing economics and requirements for better environmental control on waste management facilities, the focus moved to renewable energy generated from landfill gas. ENER-G has been developing these types of projects now for 20 years, and has in excess of 170 MW of installed capacity around the world. These projects not only generate energy, they assist both the municipalities and our private-sector clients to meet their corporate social responsibilities in terms of dealing with waste and the byproduct, "biogas," which is well known to be a very harmful greenhouse gas

ENER-G was delighted to be welcomed to look at the San Nicolas facility by the City and State of Aguascalientes, where Nissan also has its manufacturing facility. The landfill gas to energy project was successfully commissioned in December 2011 and through proactive discussions it was contracted that Nissan Mexicana, S.A. de C.V., would receive the electricity supplied by ENER-G.

The £4.4 million investment by the ENER-G is reducing carbon dioxide emissions at the landfill site by approximately 90,000 tons per year. This is equivalent to the environmental benefit of 7,045 hectares (17,409 acres) of pine forest.

We are proud of our partnership with Nissan and the City of Aguascalientes in this project, and with further projects being developed in México we hope to be able to supply further renewable energy going forward.



an Cooper
3Eng (Hons) IEng AMICE
Country Manager, Mexico
3usiness Development
Director—Landfill &
Specialist Gases
México, Romania, Poland
and the U.K.)
ENFR-G S.A. de C.V.





# **SAFETY**

Automobiles have improved people's lives with their convenience, but they can also be involved in accidents that put human life and safety at risk. Nissan aims to create cars that embody the "pleasure and richness of driving" while prioritizing customers' peace of mind through the pursuit of a high level of real-world safety. Its ultimate goal is to achieve virtually zero traffic accidents involving Nissan vehicles that result in serious or fatal injuries. This means, of course, working to improve passenger safety in its vehicles. It also means promoting educational activities to raise safety awareness among drivers, pedestrians and the community. Toward the realization of a safer society with more mobility, the company is involved in a wide range of activities with other stakeholders.

#### NISSAN PRIORITIES

p. 46

p. 49

p. 51

#### **SAFETY**

## NISSAN CSR SCORECARD

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 (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
promotion, making the automobile	targets for Nissan-related traffic fatalities, etc., real-world analysis of	fatalities and serious injuries involving Nissan vehicles (figures available	Europe (U.K.): 58% reduction	Japan: 59% reduction U.S.: 53% reduction Europe (U.K.): 64% reduction (All as of the end of December 2012)		Aim for ultimate goal of virtually zero fatalities and serious injuries involving Nissan vehicles

## **KEY FIGURES**

Reductions in fatalities and serious injuries in accidents involving Nissan vehicles (2012; compared to 1995)

Japan	59%
U.S.	<b>53</b> %
Europe (U.K.)	64%



→ GRI G4 Indicators

▶ G4-PR1

NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

#### **NISSAN'S APPROACH TO SAFETY**

Nissan takes the fundamental approach of pursuing "real-world safety" toward the realization of a society with virtually no traffic accidents. There were 4,373 deaths resulting from traffic accidents in Japan in 2013, the 13th straight year for this figure to decline. The World Health Organization (WHO) notes that 1.24 million people lose their lives each year in automobile accidents around the globe and warns that if urgent steps are not taken, accidents could become the fifth leading cause of death worldwide by 2030. The company set a target of reducing the number of fatalities and serious injuries involving Nissan vehicles to half of 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 leading to death or serious injury.

To help reduce accidents and meet its targets, Nissan focuses on developing vehicle safety technologies and incorporating them into as many of its vehicles as possible. It also implements a comprehensive approach that includes people and the traffic environment. To help contribute to the realization of a truly safe society, Nissan uses a triple-layered approach, taking measures in the areas of vehicles, individuals and society.

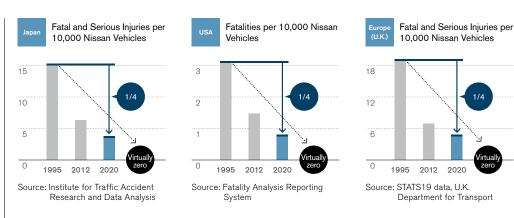


#### Nissan's ultimate goal:

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.



#### **FISCAL 2013 PERFORMANCE**

- The world's first Predictive Forward Collision Warning developed, introduced on the Infiniti Q50 launched globally, beginning in North America in August 2013
- The Infiniti Q50 was awarded the highest ratings by the U.S. New Car Assessment Program (NCAP), the Insurance Institute for Highway Safety (IIHS) and Euro NCAP
- Forward Emergency Braking to assist prevention of forward collision introduced on the Infiniti Q50, launched globally, beginning in North America in August 2013; the X-TRAIL, Serena and Note in Japan; and the Qashqai in Europe
- Autonomous Drive system, which has the potential to reduce traffic accidents in the future, revealed at "Nissan 360" event; testing begins on the Sagami Expressway in Kanagawa Prefecture
- Nissan Safety Driving Forum held in India

**NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014** 

#### **FUTURE MEASURES**

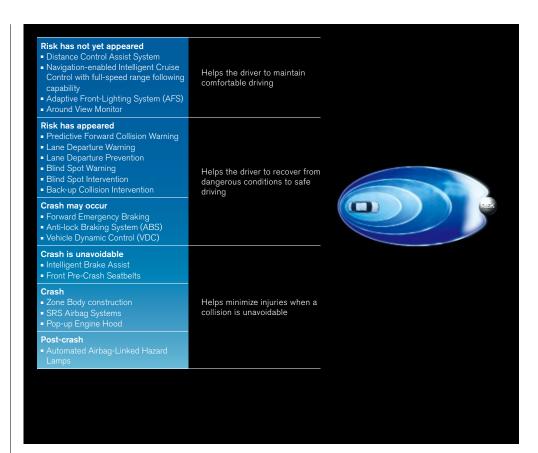
- Development of new safety technologies and broader application of them in the product lineup
- Expansion of traffic safety programs carried out in major Indian cities to other regions

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

Based on 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 maintain distance from 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.



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

Even a careful driver can encounter situations where blind spots occur, and even in zones that the driver can see, risks can arise to threaten safety. Nissan supports safer driving by developing preventive safety technologies to help detect such risks in advance, warn the driver of them and, in emergency situations, intervene to help prevent accidents. These technologies are based on the Safety Shield concept of vehicles that help protect people. Nissan aims to make them part of a 360-degree driving assistance system for virtually "collision-free cars" that help to prevent collisions at the rear and sides as well as the front of the vehicle.

In fiscal 2013, Nissan further improved existing technologies and broadened vehicle support for drivers through technologies like Predictive Forward Collision Warning. This system can detect movement up to two cars ahead, which was previously impossible; it warns drivers if it calculates deceleration is necessary.

Nissan also advanced development to simplify the structure of its existing support systems. In fiscal 2013, the Around View Monitor, which provides a virtual bird's-eye view of the car, appeared in the DAYZ, the company's first minicar. Nissan has also introduced the Emergency Brake, which assists in the prevention of forward collisions, in several models.

Nissan has set a goal of providing worldwide optimal mobility and is committed as an automobile manufacturer to the expanded use and popularization of 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 alerts 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 a collision.

#### Predictive Forward Collision Warning

This world's first system warns 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, to the presence of a detected vehicle in the blind-spot area. It also assists 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

The Lane Departure Prevention system senses unintended lane drift and automatically assists the driver to return to the center of the lane.

#### Back-up Collision Intervention

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



World's first Back-up Collision Intervention.

#### Around View Monitor (with Moving Object Detection)

The Around View® Monitor with Moving Object Detection provides a virtual 360° view of the parking environment 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 approaches to safety. The company believes that these technologies 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 five laser scanners and five 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 at crossroads with no traffic lights or when passing parked vehicles.

In a society facing issues like 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 in the daily lives of the rapidly growing number of senior citizens. Nissan believes that Autonomous Drive technologies are a major breakthrough offering new mobility value. The company's goal is to be ready to commercialize these technologies and bring vehicles with Autonomous Drive to the market by 2020.



Nissan Autonomous Drive test vehicle.

Click here for more information on the Hello Safety Campaign (Japanese only).

#### **▶** website

▶ website

<sup>2</sup> Click here for more information on the Omoiyari Light Promotion (Japanese only).

#### **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, 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. each day. As part of its 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 2013 Nissan continued enhancing its ongoing activities. The company also conducted the following three new activities.

• Headlamp Early Lighting Research Lab: Nissan provided information on a dedicated website about the effects of turning headlights on early, complete with case studies. ② Creative Ideas for Twilight-Time Safety Meetings: Nissan held meetings at Global Headquarters with the aim of connecting people involved in similar activities. The meetings brought together people involved in traffic safety at companies and organizations, safety technology developers and individuals interested in the topic. Activities included presentations considering vehicles, individuals and society and workshops about timing for turning on headlights.



Nationwide call for early headlamp lighting: Following on from 2012 efforts, Nissan held a Day of Good Lighting (based on a Japanese play on words) on November 10, 2013, working with partners throughout the country to urge drivers to turn on headlights earlier.





Through these activities, Nissan is spreading awareness to other industries, nonprofit organizations and individuals.

#### Safety Education in Korea and the Middle East

Nissan Middle East FZE educates children about traffic safety through a dedicated website. Launched in October 2009, the site uses puzzles, pictures for coloring and other features to make learning online fun as well. The website shares easy-to-understand information with elementary school students in Arabic, English and French.

Nissan Korea Co., Ltd. launched its Nissan Kids Safety Campaign in April 2009. This campaign features similar content to that of the Middle East project and uses a website and booklets to educate children on traffic safety.

#### Promoting Traffic Safety in China and Indonesia

Traffic safety has become an increasingly important issue in China, which is seeing a rapid increase in the number of automobiles on the road. In 2005 Nissan (China) Investment Co., Ltd. hosted its first safety program to improve drivers' skills and safety awareness in cooperation with the China Road Traffic Safety Association. Many customers, government officials and media representatives attended the forums, which featured programs for learning braking, cornering and other driving techniques from qualified instructors, contributing to deeper understanding of traffic safety. Programs for ecodriving skills were also included. Today these activities are implemented by the passenger automobile division of Dongfeng Motor Co., Ltd., as part of the Nissan Technology and Safety Driving Forum, a program of activities in which dealerships also participate.

In August 2013, the 2013 China Road Traffic Safety Forum took place in Beijing. A record number of attendees were on hand, with participation by more than 500 specialists and representatives from the Ministry of Public Security and the Association for Safe International Road Travel, as well as from automobile and parts manufacturers and universities and research facilities based in China and other countries. Nissan presented its triple-layered safety approach, explaining how it could be effective in reducing traffic accidents in China.

The company also designed a contest to test Chinese high school students' knowledge of traffic safety and environmental protection issues. The year 2013 was the 7th for the event, which aims to increase interest and awareness of safety issues among young people, the drivers of tomorrow. In

addition to taking simple quizzes on basic traffic rules, automotive safety devices and environmental issues, participating students made their own presentations on automotive and traffic safety.

In Indonesia, the company started the Nissan Smart Driving program as a way to emphasize the importance of traffic safety. The program started out as a cooperative project with a lifestyle magazine designed to promote safe driving habits, but the scope of activities has since broadened to include hands-on safety workshops led by driving instructors for university students.

#### Nissan Safety Driving Forum in Emerging Markets

Nissan has launched the Nissan Safety Driving Forum program in emerging markets as part of its efforts to promote safer mobility. The aim is to enhance road safety awareness among as many of its customers as possible.

In fiscal 2013, the forum took place in the three key Indian cities of New Delhi, Mumbai and Chennai as well as Bangalore, Hyderabad, Ahmedabad, Amritsar and Lucknow. Nissan used panel displays and interactive simulators to communicate the importance of wearing seatbelts and promote awareness among participants. Preparations are now underway to expand this program to Russia and other regional markets.

#### **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 the 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 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 in order 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 its 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 network of roads, 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 them of potential dangers like crossing collisions and helping make sure they notice stop signs, signals and vehicles stopped at lights.

#### Helping Reduce Wrong-Way Accidents

Recently Japan has seen a number of serious accidents caused by 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 is the first vehicle in the world to employ this system.

# **Messages from Our Stakeholders**

# More Light for Fewer Accidents

The number of traffic accidents rises during the dusk hours. In autumn in particular, it can be difficult to see pedestrians and cars when they blend into the background in the sunset light.

During the three months from October to December 2013, Yamagata Prefecture saw a total of 1,995 traffic accidents. Of these, 276 accidents took place from 5:00 to 6:00 in the evening—around 3.3 times more than the hourly average.

The Yamagata Prefecture Traffic Safety Managers Association works together with Nissan on its Omoiyari Light Promotion as part of efforts to reduce the number of accidents by getting drivers to turn on their headlights earlier in the evening.

The Yamagata Prefectural Police are also tackling the problem of road safety by promoting the use of reflective strips that elderly pedestrians can affix to their clothing. Meanwhile, we offer instruction at the business locations of our association members. We also engage in outdoor publicity activities to spread the word about the importance of turning on vehicle lights early in the evening.

When we stand at the roadside with our yellow flags urging drivers to turn on their lights, most of them are happy to cooperate. There are some cars, though, that keep their lights off even after the sun has set. This is something that can be prevented by car systems that automatically turn them on when the environment grows darker; there are even cars with an "Omoiyari Light" function that adjusts this setting to turn the lights on earlier in the evening. We hope to see more automakers include these functions in their vehicles.

Our hope is that everyone will work together to illuminate Japan during the dusk hours with the Omoiyari Light Promotion, thus helping to reduce traffic accidents.



Zenjiro Oba Managing Director Yamagata Prefecture Traffic Safety Manager Association



# **PHILANTHROPY**

In addition to delivering innovative, exciting vehicles and outstanding services to customers worldwide, Nissan believes it is important to contribute further to society. 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 and nonprofit and nongovernmental organizations, to address complex social issues, leveraging mutual strengths to implement effective initiatives. With a common vision, Nissan's regional offices and affiliates also conduct activities to respond to needs everywhere the company operates.

#### NISSAN PRIORITIES

<b>Three Focus Areas</b>	

p. 55 p. 55

p. 57

\_\_\_p. 59

# **PHILANTHROPY**

#### **NISSAN CSR SCORECARD**

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 (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
Three Focus Areas	Environment  Education	Clarification of Nissan's philanthropy policy, reinforcement of in-house organization and enhancement of philanthropic activities	Expansion of environmental education program (Global)	Designated officers to head CSR, philanthropic efforts at bases in Japan, Europe and North America; created system for global promotion and cooperation	ilanthropic efforts at bases in pan, Europe and North America; bated system for global omotion and cooperation  school-visit educational programs globally  Held pil the U.K.  Expandec	Expanded school-visit program in Japan     Held pilot school-visit program in the U.K.  Expanded school-visit program to Mexico and the U.K.	Continually implement unique philanthropic programs centered on *environment,* *education* and *humanitarian support,* balancing global perspectives with the most appropriate activities for each region
	Humanitarian Support		Response to natural disasters (Global)  Activities in partnership with Habitat for Humanity (Global)	Signed global agreement with Habitat for Humanity, a partner to Nissan North America since 2006; set FY2012 course for stronger participation in poverty relief     Held talks with more than 10 NPOs active in the March 11 disaster zone to provide maximum support to highneed areas	Started discussion to establish "Natural Disaster Response Policy" among headquarters in Japan/U.S./Europe     In cooperation with Habitat for Humanity Japan, organized volunteer tours for employees in the tsunami-affected area in Ofunato, Iwate Prefecture, with special paid holiday for participants; a total of some 100 employees participated	Established disaster-response processes and communicated them to responsible managers in Japan/U.S./Europe     Began five-year project in Myanmar in parthership with Habitat for Humanity	

## **KEY FIGURES**

Global social contributions (FY2013)\*

Approx. ¥1.5 billion

\* Worldwide contributions, including donations and monetary contributions



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

Nissan's social contribution activities focus mainly on the areas of the 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 expertise, products and facilities.

Nissan emphasizes 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



#### **FISCAL 2013 PERFORMANCE**

- Launched social contribution projects in South Africa and Myanmar in partnership with Habitat for Humanity, an international NGO
- Held Kids Fab CARAVAN workshops featuring advanced digital fabrication machines to support children in areas affected by the Great East Japan Earthquake
- Made social contributions of approximately ¥1.5 billion in fiscal 2013 (global total, including donations and monetary contributions)

Breakdown of Fiscal 2013 Social Contributions (Nissan Motor Co., Ltd.)

	Activity costs	Monetary donations	Donations of items (value)	Total
Amount (¥ million)	248	232	30	510
% of total	48.6	45.5	5.9	100.0

#### **FUTURE MEASURES**

- Establish key performance indicators (KPIs) to measure results of important activities
- Provide ongoing support to the areas hit by the Great East Japan Earthquake

#### **COMPANY ORGANIZATIONS FOR PHILANTHROPY**

The CSR Department at Nissan's Global Headquarters in Japan formulates Nissan's policy for philanthropy. A policy discussed and decided by the Executive Committee is shared globally, and each region conducts activities based on this policy.

In January 2014, the Group moved to a six-region structure to address market needs more precisely.

#### **ENVIRONMENT**

Nissan's environmental philosophy is "a Symbiosis of People, Vehicles and Nature." Nissan actively engages in reducing the environmental load on the planet and places priority on the environment in its philanthropic activities. The company carries out educational programs to cultivate a deeper understanding of environmental issues and to promote basic research toward a low-carbon society.

#### School-Visit Programs (Japan)

Since 2007, Nissan has put its manufacturing know-how to work by carrying out three school-visit programs. The programs target older elementary school students, with instructors dispatched from Nissan.

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

This program was so well received that Nissan has increased the number of Eco School classes in Japan. In fiscal 2013, about 6,000 pupils from 51 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 25,000 children have participated as of the end of March 2014. 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.

#### Partnership with Fleet Forum (Europe)

Nissan has partnered with the Fleet Forum Association, an NPO headquartered in Switzerland, with the goal of helping to reduce the environmental impact of vehicles used in humanitarian activities. In fiscal 2013, Nissan conducted an EV Demonstrator Program with the Fleet Forum Association. A Nissan LEAF has been provided to five organizations, including ones affiliated with the United Nations, to experience the benefits of zero-emission mobility, through a fixed period loan, free of charge.

#### **EDUCATION**

Nissan believes supporting young people is an investment in the future and generations to come. For the realization of a society where anyone can open the door to a better future, the company is working on several educational programs that utilize its knowledge and technology base, in addition to working to provide primary school education opportunities in emerging countries.

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

Nissan has organized the Nissan Children's Storybook and Picture Book Grand Prix<sup>\*1</sup> each year since 1984. The award celebrated its 30th anniversary in 2014.

Through March 2014, more than 200,000 copies of published winning works have been donated to public libraries across Japan and kindergarten classrooms near Nissan offices. In 2012, the office in Portugal, Nissan Iberia, S.A. (NIBSA), established a similar program in which the company identifies young talented writers in schools within the country and provides opportunities for book publication in cooperation with local governments.

In Tennessee, the site of the company's U.S. headquarters, Nissan North America (NNA) supports the Governor's Books from Birth Foundation literacy program in collaboration with the Dolly Parton Imagination Library. The program aims to foster a love of reading among preschool children, resulting in improved long-term educational outcomes.

In areas hit by natural disasters, including the Great Sumatra Earthquake and the Great East Japan Earthquake, Nissan supports mobile library projects organized by the Shanti Volunteer Association as part of relief efforts.

#### **▶** website

Click here for more information on the Nissan Children's Storybook and Picture Book Grand Prix (Japanese only).

#### **▶** website

<sup>2</sup> Click here for more information on Nissan's support for the Dolly Parton Imagination Library.

▶ website

Click here for more information on the Nissan Waku-Waku Eco School (Japanese only).

#### ▶ website

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

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

Through engaging and fun activities, Nissan works to instill in the younger generation 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 visit elementary schools. Some 19,000 children participate in the programs every year. The Nissan Monozukuri Caravan also made its European debut in the United Kingdom, where the Sunderland Plant welcomed local school groups. Other programs with students, such as the U.K. Annual University Engineering Summit with Nissan's R&D Center (NTC-E Cranfield) or contributions to "See Inside Manufacturing" with NMUK entities, enable Nissan to engage with the next generation of automotive professionals.

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.



Pupils visit the Sunderland Plant to take part in the Nissan Monozukuri Caravan (U.K.).

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

In Brazil, where Nissan's new plant launched operations in 2014, the company has established Instituto Nissan. This foundation for the education of children and young people has set the goal of developing in step with the local area. The foundation provides a wide range of cultural, sports and other programs for children in Rio de Janeiro, where Nissan do Brasil Automóveis Ltda.'s head office is based; in Resende, where the new plant is located; and in São Paulo and other locations where Nissan has offices.

Since 2010, Nissan (China) Investment Co., Ltd. (NCIC) has operated the "Nissan Caring for Migrant Children" program in China. To further enhance this program, NCIC launched the "Dream Classroom" program in 2013. Previously the focus was on supporting the children of migrant workers who have traveled from their rural homes to the cities. With "Dream Classroom," the focus has been expanded to target elementary and middle school pupils in economically disadvantaged districts. Through this program, NCIC supported some 3,000 pupils during fiscal 2013.

In fiscal 2013, Nissan South Africa (NSA) provided a mobile eye clinic that screened 6,624 schoolchildren. The Nissan Mobile Child Eye Health Project has been operating for the past four years. This activity helps children from disadvantaged backgrounds gain access to eye care, thus enhancing their ability to see and learn.



Children take part in traffic safety training as part of the "Dream Classroom" program in China.

Click here for more information on the Nissan Global Foundation.

▶ website

#### ▶► website

Click here for more information on the Nissan Art Award.

#### Academic Efforts

#### Nissan Global Foundation (Japan)

Nissan recognizes the need to create a sustainable society on a global basis. The Nissan Global Foundation aims to help achieve a society whose members can look to the future with hope and creates opportunities for the fostering of human resources toward this end. Based on this vision, the Foundation provides financial support for training programs, primarily in the field of science education.

One way the Foundation nurtures childhood development is with support for science education that develops critical thinking among young people. In fiscal 2013, the Foundation launched the Science Education Awards in Japan. By presenting awards to schools with the best performance in the course of the two-year program, the Foundation aims to spark fresh interest in science education. The Nissan Global Foundation also provides support for basic research in various fields for the realization of a low-carbon society.

In fiscal 2013, the Foundation contributed approximately ¥45 million to 37 projects. Since the establishment of the Foundation in 1974 through the end of March 2014, a total of ¥6.9 billion has been provided to approximately 2,500 projects.

#### Supporting Talented Japanese Artists Through the Nissan Art Award

In 2013, to mark the 80th anniversary of its foundation, Nissan launched the Nissan Art Award to support the activities of Japanese artists with talent and potential. Aiko Miyanaga received the Grand Prize in the 2013 award, which showcased contemporary art. Among the eight finalists, Tatzu Nishi also earned high praise and received the Special Jury Award. Through this program Nissan aims to contribute to the development of Japanese culture and to stimulate new inspiration in society, presenting awards every other year.



#### 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 has expanded its humanitarian efforts to include new initiatives in emerging countries 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, which struck the American Gulf Coast in 2005. Habitat for Humanity carries out its activities around the globe, building or repairing houses to aid people in need of safe, affordable housing.

Nissan fully endorses the vision behind these activities, which is in accordance with the company's vision of Enriching People's Lives, and decided to expand the partnership in 2012. The area of operations has broadened to include Japan and other countries, and home construction and other related activities have started with Nissan's regional companies and their employees, who contributed their time to volunteer.

#### ▶ website

Click here for more information on the Nissan Institute.

#### ▶ website

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

In fiscal 2013, Nissan began a new housing and local community development project in South Africa, targeting a total of 50 buildings. In Myanmar, where a plant manufacturing Nissan vehicles will be completed in 2015, the company has started working together with the international NGO World Concern on a five-year project with the goal of creating hygienic, disaster-resistant communities.



A school building can double as a disaster shelter in emergencies (construction planned in Myanmar).

#### The Kids Fab CARAVAN: Bringing Smiles to Children in Tohoku

Nissan supports the vision behind the Kids Fab CARAVAN workshop, run by the NPO Hug Japan. The company donated a Nissan LEAF and an NV350 Caravan and provided partial funding for the project. The workshop allowed children in areas affected by the Great East Japan Earthquake to enjoy creating products using 3D printers, laser cutters, digital sewing machines and other advanced devices. A total of 1,689 children took part in workshops in Ibaraki, Fukushima, Miyagi and Iwate Prefectures. The electricity to power the workshops was supplied by the Nissan LEAF.

#### **Addressing Natural Disasters**

#### Relief Activities in China's Sichuan Province

On April 20, 2013, a major earthquake hit Sichuan Province in China. Nissan Motor Co., Ltd., Nissan (China) Investment Co., Ltd. (NCIC) and Infiniti Business Unit (IBU) (China) made a combined donation of 3 million yuan (approximately ¥48 million) through the China Foundation for Poverty Alleviation, a Chinese NPO, to support people affected by the disaster. The money was used to repair schools, help children in the area to return to normal daily life and provide an environment where they could resume studying.

#### Relief Activities in the Philippines

Nissan made a contribution of approximately ¥20 million to support areas in the Philippines hit by the powerful typhoon Haiyan in November 2013. Of this amount, ¥10 million was donated to the NGO Japan Platform to fund immediate emergency activities. The company also donated three Navara pickup trucks to the World Food Programme to assist with recovery operations.



Nissan presents the three vehicles to assist the Philippine region affected by the typhoon Haiyan.

#### **NISSAN AS A COMMUNITY MEMBER**

Nissan aspires to be a good corporate citizen as a valuable member of and active contributor to local communities in every region where it does business. The company provides support locally in a variety of ways by answering local needs, such as by holding a Nissan Egypt blood donation campaign, assisting with community events, sponsoring neighborhood cleanups and other beautification activities near Nissan facilities, and hosting fun and informational activities—including exciting product events with local orphanages or hospitals in Hungary, Russia and France—among other forms of contributions. Many employees actively participate as volunteers.

#### Putting Expertise to Work for Society

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.

In fiscal 2012, the company expanded these activities and launched a new program for community contributions, the Nissan Technical Center School. The purpose is to link the expertise of NTC and NATC, Nissan's *monozukuri* bases, to the community. Nissan's people visit schools and deliver lectures on a variety of topics, including product planning, design and environmental technology. In fiscal 2013, there were 30 lectures for 2,300 participants, with the active involvement of 110 employees. Nissan will expand its activities further in the future to meet community needs.

# **Messages from Our Stakeholders**

# Looking Back on 30 Years of Children's Literary Prizes

The Nissan Children's Storybook and Picture Book Grand Prix was established in 1984. In this same year our International Institute for Children's Literature, Osaka, opened its doors on the grounds of the Expo '70 Commemorative Park in Osaka. It is no exaggeration to say that the contest has gone hand-in-hand with our institution all through its history.

When we first launched the institute, we went to Nissan Motor Co., Ltd.—even then famous for taking names from classic children's literary works, like Cedric or Bluebird, for its vehicle names—and obtained the financial assistance we needed. When Japan's bubble economy fizzled in the early 1990s, many companies reduced their charity involvement, but thanks to Nissan's understanding of and unwavering support for our mission, we have been able to implement the Grand Prix without altering its concept for three entire decades. We are deeply grateful to the company for this.

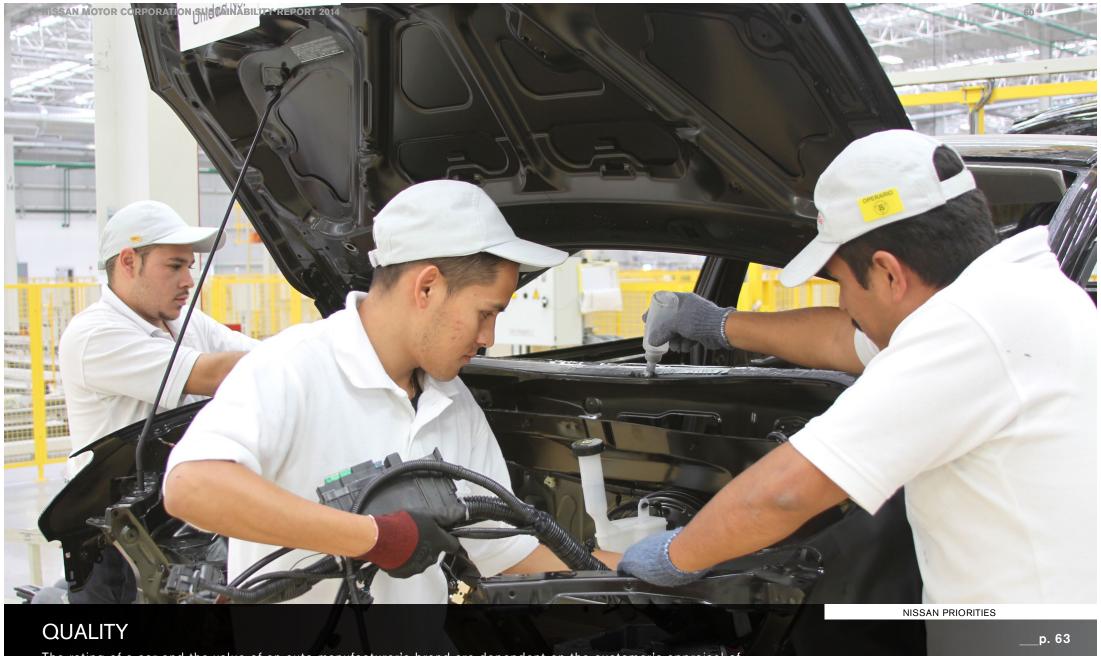
In the first year of the Grand Prix, we received 2,888 entries in the storybook category and 322 picture book entries. The 30th contest drew 2,321 storybooks and 481 picture books. In all, during the 30 years of the contest we have received more than 100,000 entries. From the very beginning we have been pleased to receive these entries from all over Japar Entrants come from a broad range of age groups, and the success of the contest owes much to the passion that so many people show with their participation.

The Grand Prix has discovered numerous authors who went on to make an impact in children's literature, such as Hirokazu Miyazaki, whose Wani-kun no ookina ashi (Little Crocodile's Big Feet) won the top prize in the first competition and who went on to success with his Little Crocodile series. To name just a few of the winners who have gone on to success, in the storybook category there are Miki Ozaki, Mariko Nishimura and Madoka Sato, and in the picture book category there are Hiromi Onishi, Akiko Miyakoshi and Junko Nakaarai. And Tadashi Nagayama, who received the 30th picture book prize in March this year for his Kii-chan (Little Tree), at last found success in his 10th time to enter the contest.

Children are the primary readership for these storybooks and picture books. We have always believed that these books are vital to children's development, although their impact does not show up in visible ways, like their scores on academic achievement tests or records in athletic endeavor. Our goal is to continue presenting the Grand Prix awards into the future in the hope that the importance of reading will slowly but surely take concrete shape and gain recognition among people of all generations.



Okiko Miyake
Chief Director
International Institute for
Children's Literature,
Osaka



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. 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.

\_\_p. 64

\_\_\_p. 66

#### QUALITY

#### **NISSAN CSR SCORECARD**

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 (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
Product Quality	Achievement of high scores in external indicators that are most influential to customers	[North America] Consumer Reports and J.D. Power IQS/VDS	Achieved nearly all FY2011 targets	U.S.: Infiniti EX, Infiniti M, Frontier and Quest took the top spot in each segment in J.D. Power IQS	U.S.: Infiniti brand ranked 6th in all Consumer Reports categories, Nissan brand ranked 14th in non-luxury category (October 2013)  U.S.: Infiniti FX and Murano took the top	Under quality improvement goals of Nissan Power 88, make Infiniti a leading luxury brand and make Nissan a leading global automotive brand by FY2016
					spot in each J.D. Power IQS segment (June 2013)	
		[Europe] U.K.: What Car? Germany: ADAC	<ul> <li>U.K.: Qashqai and Note earned high marks in What Car?</li> <li>Germany: Qashqai and Micra won high</li> </ul>	U.K.: Qashqai and Note earned high marks in What Car? Germany: Qashqai and Micra won high reliability	U.K.: Qashqai and Note earned 4 stars and Juke earned 3 stars in What Car? (May 2013)	
		Italy: Quattroruote	reliability marks in ADAC	marks in ADAC	<ul> <li>Germany: Qashqai and Micra won high reliability marks in ADAC (April 2013)</li> </ul>	
		[Other] China: J.D. Power IQS/VDS South Africa: Ipsos PSI Brazil: Quatro Rodas	China: 3 models in top 3 rankings for J.D. Power IQS, 4 models in top 3 for J.D. Power VDS     South Africa: 3 models in top 3 for Synovate PSI (in FY2012 Synovate was acquired by Ipsos; later rankings are under that name)	South Africa: X-TRAIL and NP200 ranked 1st, Micra and Navara ranked among the top 3 in each Ipsos PSI segment     Brazil: Versa, March took top rank in each category in <i>Quatro Rodas</i>	South Africa: NP200 ranked 1st, Micra, Oashqai and X-TRAIL ranked 3rd in each Ipsos PSI segment (November 2013)	
					Brazil: March ranked 2nd in its segment in Quatro Rodas (December 2013)	
			and name)		<ul> <li>India: Micra ranked 2nd in its segment in J.D. Power IQS (November 2013)</li> </ul>	
Sales and Service Quality	Achievement of Sales and Service Quality objectives, resulting in the highest levels of customer loyalty and service retention	Customer satisfaction survey results relating to Sales and Service Quality in focus countries	Maintained Top-Level Quality in those focus markets where already attained; improved rankings in other markets by implementing kaizen actions	Maintained Top-Level Quality in those focus markets where already attained; improved rankings in other markets by implementing kaizen actions	Maintained Top-Level Quality in Japan, China and Mexico; improved rankings in the U.S. and other major markets by implementing <i>kaizen</i> actions	Achieve Top-Level Quality in all focus markets by FY2016

#### **KEY FIGURES**

- Approximately 200,000 customer inquiries handled (Japan)
- Solid results in third-party product quality surveys (see listings in scorecard above)
- Top-level scores in J.D. Power Sales Satisfaction Index, Customer Satisfaction Index (Japan, China and Mexico)



# ▶ website

Click here for more information on "Enhancing Quality."

#### **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 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 companywide in its pursuit of customer satisfaction.

#### **FISCAL 2013 PERFORMANCE**

- Continued monitoring product quality survey results\* from third-party organizations in fiscal 2013; conducted internal reviews
- Globally bolstered initiatives to reflect customer feedback in all processes, from product planning to after-sales service
- Set up "Quality Listening Box" in Japan to collect employee feedback regarding quality
- Began measures at dealers to improve sales and service quality for new vehicles

#### **FUTURE MEASURES**

- Continue comprehensive efforts to enhance quality, towards the goal of elevating the Nissan brand into the top group among global automakers and Infiniti into a leader among luxury brands
- Construct system to share know-how globally for enhanced quality in developed countries

#### ▶ page\_61

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

**NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014** 

#### **COMPANY ORGANIZATION FOR QUALITY**

To further improve overall customer satisfaction, Nissan has revamped its Quality Management System (QMS), headed by executives with responsibility for maintaining quality, to strengthen its implementation structure. The management system now clarifies responsibility for a broad range of quality items. It promotes initiatives that not only address the quality of Nissan's products but also enable cross-functional management of sales and service activities, the distribution phase and part suppliers. This lets Nissan offer top-level quality that satisfies customers in every way.

Nissan also has the Quality Management Committee, the Global Sales Steering Committee, and the Sales & Service and Monozukuri Collaboration Committee. Under executive leadership, these teams meet regularly to discuss specific issues.

#### 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.

Employees who buy Nissan vehicles are also customers and important stakeholders. The company actively seeks their views on quality for incorporation in improvement initiatives.

#### 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 200,000 cases of comments and questions from customers. All catalogs, instruction manuals and similar materials published in the last 50 years have been converted into PDF files 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.

For quality purposes, Nissan also positions its employees as customers of the company. The "Quality Listening Box," on the company intranet since 2013, lets employees actively contribute information to raise the quality of products and services.

#### Reflecting Customer Feedback in Products and Services

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

Opinions and comments received by the customer call center in Japan are shared companywide on the intranet, where employees can access and view the database at any time.

Additionally, important cases are discussed in executive-led committees, whose decisions are applied to Nissan's products and services.

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

To improve quality companywide, all employees must consider the customer's perspective and keep customer satisfaction (CS) in mind as they work.

In Japan, Nissan holds CS training for new hires, employees in their third year and newly appointed managers. 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 company is expanding its measures to overseas sites with the aim of cultivating this mindset globally.

The company has held the Nissan Quality Forum for employees and suppliers from 2003. This forum uses 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. The forum is organized continuously and cross-functionally by the Total Customer Satisfaction Function (TCSX)\* and the R&D, manufacturing, sales/service and other divisions in order to raise awareness of CS and quality-improvement issues of all employees. The forum takes place in Japan, the United States, the United Kingdom, Russia, China, Thailand and other locations around the world.

The TCSX targets an overall increase in customer satisfaction with the goal of gaining a thorough understanding of customer dissatisfaction and making necessary improvements.

#### **PRODUCT QUALITY**

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.

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.

#### **Product Quality Assessments by External Bodies**

Nissan uses the results of third-party quality surveys\* as internal indices, applying them in improving the manufacturing of its vehicles. It 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 using 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 in-house 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 expanding the surveys' geographic coverage to gain a fuller 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. As a result, it has reduced defects by almost half from levels prior to the launch of this initiative.

All factors that affect CS, not just mechanical faults, are a part of vehicle quality. Nissan sees these factors as issues requiring action and strives to improve quality in these areas.

The J.D. Power Initial Quality Study indicated, for instance, that rear wiper switches on Nissan vehicles were difficult to use because of differences with other manufacturers' models. The sales and service division teamed up with R&D personnel to undertake a cross-functional initiative addressing the issue. This produced a revised instruction manual, as well as enhanced efforts by sales personnel to explain how the switch is used at the time of delivery and consideration by the R&D team of adjusting how rear wipers are operated.

The values that customers expect from vehicles may vary according to their culture, sex, age and personal taste, and can be affected by such market factors as the level of car ownership or climate. Although Nissan uses a set of basic specifications for global design, it also makes adjustments to meet regional needs.

#### **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 obtains data on warranty service claims made two to four years after the initial sale and on problems that arise out of the warranty period. Analysis of this data contributes to the development of technologies that are more resistant to durability issues. Nissan's aim is to reduce durability quality issues by at least 30% by fiscal 2016, compared to the fiscal 2010 level.

▶ page\_61

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

#### 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 worldwide presences 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 *monozukuri* activities 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 but also with its tier-2 suppliers as well.

#### Improving Quality in Different Markets

Nissan established its Field Quality Centers (FQCs)\* with the goal of getting a better understanding of customer demands in each region of the world and providing prompt solutions to the quality issues arising there. There are now eight FQCs in operation in Japan, Europe, the United States (two locations), Brazil, China, India and South Africa.

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 Consistently High-Quality Products 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 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 Training Centers (GTCs)

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 Nissan 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.

#### 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)

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 cars, 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 go beyond 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 purchasing 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 (covering such items as delivery process, delivery timing and salesperson) and Customer Service Index (including service, maintenance and repair) as internal indicators. In fiscal 2013, Nissan maintained top SSI and CSI levels in Japan and China; came in first place for CSI and second place for SSI in Mexico; and made year-on-year improvements in Thailand.

#### 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 customers' perception of Nissan's brands and products as well as to increase satisfaction with its sales and marketing activities and its 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.

#### **Enhancing Sales Quality**

In the area of sales quality, it is critical to improve the salespeople's skills and their knowledge of the vehicles. Nissan conducts sales training for new models, as well as skill improvement activities for its sales companies on a global basis. In fiscal 2013, to ensure customers receive the service they expect from sales outlets, the company adopted a new process for managing the sale of new models at dealerships. Nissan has created checklists for dealerships to confirm whether they have made necessary preparations for selling new models and whether their staff members have completed training for those models. Dealerships are required to implement these tasks, and Nissan annually monitors their progress. In fiscal 2013, dealers in Japan, the United States, Europe, China and India adopted this process.

As customers' expectations and preferences shift, it is also important to renovate dealerships accordingly, reflecting current trends. Nissan aims to maintain the same level of quality at all its sales outlets worldwide, at the same time ensuring that they meet diverse customer expectations in every country where it operates.

#### **Boosting Service Quality**

For service quality, Nissan places importance on offering high quality repair and maintenance in a swift and precise manner. Nissan has developed and rolled out proprietary training programs and materials to improve its technicians' skills.

In Japan, Nissan fosters highly competent technical staff with an in-house qualification system that requires even higher certification standards than national programs. Nissan is considering optimizing the allocation of highly certified Nissan technicians depending on dealer size, thereby ensuring consistent shop competency. Following Japan, this practice has also started in the North American and European markets.

Nissan also has a global "Train the Trainer" program to deploy technical skills to local technicians. Every year, technical trainers from subsidiaries around the world gather at the Global Training Center in Japan to take part in this program. They then return to their countries and pass on technical skills and know-how to local technicians, enabling the provision of high-quality service worldwide. In fiscal 2013, a total of 134 trainers from 26 countries took part in "Train the Trainer" at the Global Training Center.

#### Sharing CS Improvement Successes Globally

To improve customer satisfaction levels in markets worldwide, it is essential to enhance sales functions on a global basis as well as to help sales companies in various national markets meet their local needs. Nissan conducts Sales Satisfaction Index (satisfaction with the purchasing experience) and Customer Service Index (satisfaction with maintenance and delivery services) surveys in various markets. The Global SSI/CSI Meeting of major sales companies takes place periodically as a forum for global sharing of regional best practices. Regions with high satisfaction levels invariably possess know-how regarding specific approaches and tools. These are showcased at the meetings so they can be applied in regions where customer satisfaction shows room for improvement.

#### Service Skill Contest

Nissan strives to improve the technical capabilities, including basic diagnostic and repair skills, as well as the customer service skills of its after-sales service staff. These skills are further refined in the Nissan Service Technical Contest in Japan. The event, hosted with assistance from throughout the Nissan Group, focuses on employees working in dealership service departments.

The competition has four categories: Technical Staff, New Technical Staff, Technical Advisor and Female Technical Advisor. The first two groups are involved in maintenance, diagnostic and repair work, while the latter two groups are involved in frontline service reception. Teams and individual participants who take top honors at the nine regional competitions go on to compete at the national competition. The event brings together service staff with exceptional knowledge and experience from all around the country, giving them a chance to put their day-to-day practices to the test against those of their fellow colleagues. Such events help to increase both the technical skills and motivation of employees in service departments, thus strengthening the service structure of the Nissan Group as a whole.

#### Improving Sales and Service Quality in China

The Chinese market is shifting from rapid growth to a period of more stability. Customer preferences are diversifying to a range of vehicles, including sedans and high-end models. In addition to serving their needs, Nissan is seeking to increase market share through increased activities in inland regions where demand is growing. Increasing satisfaction when customers buy a replacement or a second or third vehicle is another key area of focus for the company. In addition to conventional points of contact at sales outlets, customers today make use of websites providing a great amount of information. Many customers are influenced by trusted third-party sites in selecting dealerships and vehicles, and Nissan is strengthening its collaboration with these third-party information channels.

The company is also boosting its after-sales service, as in China many people visit dealerships on the basis of word of mouth from friends and acquaintances. To respond promptly to customer complaints and dissatisfaction, Dongfeng Nissan Passenger Vehicle Company has upgraded its call-center system to allow for real-time tracking of complaints by type and time required to handle them. Efforts are underway to decrease the time needed to deal with complaints.



**NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014** 

#### **VALUE CHAIN**

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 CSR SCORECARD

Nissan Priorities	Nissan Objectives	Indicators of Progress (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
ethical, environmentally sound actions in all stages of the supply chain.	Share Renault- Nissan values, compliance with laws and regulations with all suppliers	Processes, extent of values and compliance shared with suppliers suppliers (Scope of Application) All tier-1 suppliers to Renault-Nissan Purchasing Organization (RNPO) as well as their supply chains (RNPO is responsible for 100% of total Renault-Nissan procurement by value)	Started confirming acceptance of Renault-Nissan CSR Guidelines for Suppliers when sourcing suppliers  Drew up rules for responding to legal noncompliance by suppliers, implementing them when incidents occurred  Recovery from the Great East Japan Earthquake and Thai flooding carried out with suppliers as vital activities; these were implemented and evaluated as CSR for contributing to society through support for suppliers in affected areas, prompt relaunch of production  Main approaches included: Swift sharing of information related to production recovery Steps to deal with planned blackouts, shift to weekend operations in summer months Creation of BCPs for supply chains (Japan and Thailand)	Continued Renault-Nissan CSR Guidelines for Suppliers requirement when sourcing suppliers  Clarified and launched procedures to halt requests for quotation (RFCs) when suppliers violated legal compliance  Began preliminary conflict mineral surveys to instill CSR mindset in the supply chain  Continued activities for disaster countermeasures  Constructed supply chain visualization database in Japan  Identified disaster risk areas and checked supply systems of suppliers in risk areas at important overseas sites	Added confirmation of the EU REACH Regulation actions to the Renault-Nissan CSR Guidelines for Suppliers during sourcing process (to start in FY2014) Implemented strict response to prevent recurrence of legal noncompliance by suppliers Conducted CSR-based investigation of conflict mineral usage in Japan, North America, Europe and China Implemented on-site checks of disaster preparation measures at suppliers in areas with a high disaster risk within Japan	Proceed continuously to ensure legal compliance in the supply chain and thorough understanding and implementation of appropriate measures
	Reduce the environmental impact of products through green procurement activities	Ascertaining management with suppliers based on Nissan Green Purchasing Guidelines (Scope of Application) All tier-1 suppliers around the world	In line with Nissan Green Program 2016, deployed revised Nissan Green Purchasing Guidelines to suppliers	<ul> <li>Bolstered environmental management and required compliance of suppliers with FY2012 revision of Green Purchasing Guidelines</li> <li>Started suppliers' environmental data surveys for CO<sub>2</sub> emission and other factors</li> </ul>	Distributed action plan for EU REACH, other chemical substance regulations to suppliers, requiring thorough understanding and implementation  Worked with suppliers to collect component data and ensure no inappropriate use of restricted or banned substances  Continued implementation of suppliers' environmental data surveys; researched condition of target setting for CO <sub>2</sub> emission reduction in suppliers and discussed Nissan's CO <sub>2</sub> emission-reduction targets for suppliers	Continuously advance cooperation with suppliers regarding environmental management to help reduce use of environment-impacting substances
	Promotion of CSR activities at sales companies	Sales companies (Japan)	Efforts to firmly establish compliance self-inspection program helped boost compliance awareness from FY2010 levels     Representative meeting in June urged greater care with personal information protection, leading to enhanced measures and stronger information management at each company	Continued implementation of compliance self-inspection program to enhance compliance awareness     Held meeting for dealership representatives to share examples of issues in improper handling of money, information security and harassment     Provided improvement policies, educational materials to encourage dealer efforts to prevent compliance issues	Continued implementation of compliance self-inspection program to enhance compliance awareness Held meeting for dealership representatives to share information about examples of violations and improvement policies  Dealer efforts undertaken to prevent compliance issues Implemented a new system to bolster prompt internal information sharing and responses when violations occur	Provide support to help cement voluntary efforts at sales companies

### **KEY FIGURES**

Distribution of Renault-Nissan CSR Guidelines for Suppliers

**7,700** suppliers

Suppliers examined in environmental data survey

Improvements recommended for compliance violations (FY2013)

70% of global purchases

10

Distribution of Nissan Green Purchasing Guidelines

3,000 parts, materials and service parts suppliers

Nissan Green Shop certification\* conferred

158 firms/approx. 2,700 outlets



➤ GRI G4 Indicators

➤ G4-EN27/G4-EN33/
G4-LA15/
G4-HR11/G4-S07/G4-S010

▶ page\_38

Click here for more information on the Nissan Green Shop certification.

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

To promote effective purchasing activities, the Alliance partners have established the Renault-Nissan Purchasing Organization as a common purchasing company to handle all procurement for both companies. This organization is building mutually profitable business partnerships with all suppliers.

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

Nissan uses the common transparent process worldwide when sourcing suppliers. It 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.

Nissan manages and maintains a database of basic information about its suppliers worldwide, such as the locations of suppliers' plants and the total value of purchases.

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

#### **FISCAL 2013 PERFORMANCE**

- Working with suppliers for legal compliance and CSR promotion
- Added confirmation of the EU REACH Regulation actions to the Renault-Nissan CSR Guidelines for Suppliers during sourcing process (to start in fiscal 2014)
- Implemented strict response to prevent recurrence of legal noncompliance by suppliers
- Conducted CSR-based investigation of conflict mineral usage in Japan, North America, Europe and China
- Implemented on-site checks of disaster preparation measures at suppliers in areas with a high disaster risk within Japan

- Working with suppliers to reduce use of environment-impacting substances
  - Distributed action plan for EU REACH, other chemical substance regulations to suppliers, requiring thorough understanding and implementation
  - Worked with suppliers to collect component data and ensure no inappropriate use of restricted or banned substances
  - Continued implementation of suppliers' environmental data surveys; researched condition of target setting for CO<sub>2</sub> emission reduction in suppliers and discussed Nissan's CO<sub>2</sub> emission-reduction targets for suppliers
- Working with suppliers to promote CSR activities
- Continued implementation of compliance self-inspection program to enhance compliance awareness
- Held meeting for dealership representatives to share information about examples of violations and improvement policies
- Dealer efforts undertaken to prevent compliance issues
- Implemented a new system to bolster prompt internal information sharing and responses when violations occur

#### **FUTURE MEASURES**

- Proceed continuously to ensure legal compliance in the supply chain and thorough understanding and implementation of appropriate measures, based on the *Renault-Nissan CSR Guidelines for Suppliers*
- Investigation of use of conflict minerals in the supply chain and disclosure of its findings in the Sustainability Report and elsewhere
- Continuously advance cooperation with suppliers regarding environmental management to help reduce use of environment-impacting substances
- Continued examination of suppliers' environmental data to promote CO<sub>2</sub> emission reductions and other environmental efforts in the supply chain
- Continued information security training for sales companies

#### ▶▶ website

Click here to download The Renault-Nissan Purchasing Way.

#### ▶ website

Click here to download the Nissan Green Purchasing Guidelines.

#### ▶ website

<sup>2</sup> Click here to download the Renault-Nissan CSR Guidelines for Suppliers.

#### **WORKING WITH SUPPLIERS**

To make its global supply chain sustainable, Nissan aims to conduct ethically, socially and environmentally responsible business at every stage. Based on the *Renault-Nissan CSR Guidelines for Suppliers* and the Nissan Green Purchasing Guidelines,\*1 the company is working together with suppliers to instill CSR principles.

#### Renault-Nissan CSR Guidelines for Suppliers

To effectively implement CSR practices worldwide, in May 2010, Nissan drew up the *Renault-Nissan CSR Guidelines for Suppliers*\*2 following discussion with Renault and with reference to the CSR guidelines of the Japan Automobile Manufacturers Association, Inc. It also drew up self-assessment checklists.

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

- Safety and Quality: Providing products and services that meet customer needs, etc.
- Human Rights and Labor: Prohibition of child labor and forced labor; compliance with working hour and remuneration laws, etc.
- Environment: Implementation of environmental management; reduction of greenhouse gas emissions, etc.
- Compliance: Compliance with laws; corruption prevention, etc.
- Information Disclosure: Open and impartial communication with stakeholders, etc.

Renault and Nissan have distributed the guidelines to all suppliers worldwide. The Alliance partners have also asked suppliers to further distribute them to secondary business counterparts to ensure they are shared throughout the supply chain. The guidelines must be confirmed by candidate suppliers at the sourcing stage.

Chapter 3 of the guidelines, "To Our Suppliers," mandates compliance with laws and regulations. If suppliers engage in activities that violate legal compliance, they are to report this immediately, along with investigation results, and 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.

When the guidelines were published in 2010, a section on compliance with laws and regulations was incorporated into the basic contract and applied in contracts with new business partners.

#### Confirming CSR Observance at Suppliers

Nissan confirms that suppliers are observing CSR requirements in the following ways.

- Requiring acceptance of Renault-Nissan CSR Guidelines for Suppliers when suppliers are selected.
- Checking suppliers' environmental management systems and environmental activities to be conducted with Nissan at time of selection.
- Plant process and environmental management inspections for new suppliers.
- CSR training in purchasing department to ensure that employees responsible for purchasing can check supplier CSR activities during routine operations.

Any problems in the supply of parts and materials may lead to problems for Nissan's production, the supply chain as a whole and even society itself. The company has therefore set the following criteria as assessment of CSR activities.

- Ability to continue supply in case of disaster (checking of disaster countermeasures in sourcing process and during daily operations).
- Ability to supply under normal circumstances (implementation of monthly surveys).
- Financial risk (annual assessments implemented in cooperation with finance department).
- Quality, cost, delivery, development, management (QCDDM) performance (annual assessments and checks by relevant departments).

Nissan assesses the situation at suppliers based on the above. In cases of high risk, the company works with suppliers to rapidly draft and implement countermeasures.

# Suppliers and Environmental Activities

Nissan shares its environmental philosophy and its environmental action plan with all suppliers. To improve environmental performance throughout the value chain, Nissan published the Nissan Green Purchasing Guidelines in 2001, requiring suppliers' cooperation. The guidelines offer a more detailed explanation of the environment section in the *Renault-Nissan CSR Guidelines for Suppliers*.

#### ▶ website

Click here to download the Nissan Green Purchasing Guidelines.

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 pla

#### 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
- Activity for environmental loading reduction
   Completion of surveys on CO<sub>2</sub> emissions, water usage, other environmental factors

# Revisions to the Nissan Green Purchasing Guidelines

In 2008, the Nissan Green Purchasing Guidelines were expanded from Japan to cover all operations worldwide. In 2011, to coincide with the publication of the Nissan Green Program 2016, <sup>2</sup> the company's mid-term environmental action plan, the following points were added.

- Start of environmental data surveys for CO2 emissions and water usage.
- Management of environment-loading substances expanded to more areas and substances to comply with environmental regulations in different countries.

Based on these changes, Nissan started environmental data surveys at suppliers in fiscal 2012. In fiscal 2013, the company researched the status of target-setting for  $CO_2$  emission reduction in suppliers and started to study targets for Nissan to set for supplier emission reductions.

In 2012, to reflect trends in regulations worldwide, such as the EU's REACH Regulation and RRR directive, the following points were added.

- Addition of further banned substances and global expansion of component data management.
- Checking of environment-loading substance management and activities when suppliers are selected for new cars.

Based on these changes, Nissan requires suppliers to conduct actions to comply with the EU REACH Regulation in fiscal 2014, and is proceeding with its own activities in connection with suppliers.

#### ▶ page\_18

Click here for more information on Nissan Green Program 2016.

# 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.

In fiscal 2013, Nissan started the Total delivered Cost (TdC) Challenge as part of further implementation 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**

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 and 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 the 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 2013, three companies received Global Quality Awards, and Global Innovation Awards went to six companies in the product technology category.

# **Conflict Mineral Policy and Measures**

In August 2012, bylaws were enacted in the United States requiring companies to report the use of four minerals mined in the Democratic Republic of the Congo and surrounding countries, which were potentially believed to be sources of funds for armed insurgents. Agreeing with the spirit of this legislation, Nissan decided, from a CSR viewpoint, to investigate the supply chain for any use of conflict minerals and established a policy aimed at the nonuse of conflict minerals, announcing related information on its website. Investigations began in fiscal 2013.

The necessity to check whether conflict minerals are being used throughout the global supply chain makes this a large-scale undertaking. Nissan is working together with organizations including the Japan Automobile Manufacturers Association, Inc., companies listed on the U.S. Securities and Exchange Commission, the Japan Auto Parts Industries Association and the Japan Electronics and Information Technology Industries Association to consider the best methods for investigation and result analysis.

▶ website

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

website Click here for more

information on the midterm business plan, Nissan Power 88.

# **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.

As a specific measure, 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 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 by ensuring that its sense of compliance is shared with dealerships, Nissan strives to further improve its CSR management.

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

# **Compliance Training for Sales Companies**

Nissan conducts the following initiatives as part of training for sales companies:

# Regular Revision of Code of Conduct

Every three years, Nissan revises its Code of Conduct in response to legal amendments and social demands of corporate ethics. As well as regularly revising the Code of Conduct with regard to sales companies, Nissan trains its employees concerning revisions and ensures thorough knowledge and implementation of the updated code.

In fiscal 2014, Nissan will hold training at sales companies regarding the revisions in the Nissan Code of Conduct that year.

# Bolstering Information Security and Preventing Harassment

Based on teaching materials that cover the same topics as those taught in Nissan's e-learning courses, each sales company implements information security 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 sales companies, which further share these internally to help prevent such posts. In an effort to enhance awareness and prevent recurrence, Nissan shares information on the potential adverse impact, not just to the sales company but also to 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 sales companies, Nissan is providing training materials with a focus on power harassment. From fiscal 2012 to fiscal 2013, sales companies undertook training on such topics as "examples of acts and statements that constitute harassment," "what impact a harassment case can have," "past incidents involving sales companies" and "what steps should be taken when a case comes to light." In fiscal 2014, training will be held again for all new employees who joined the company in or after fiscal 2013.



# **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. For Nissan, employees are valuable assets, and the company places great importance on establishing a workplace that maximizes the performance of all. 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."

# NISSAN PRIORITIES

\_\_\_p. 78

\_\_\_p. 85

\_\_\_p. 88

\_\_\_p. 90

# **EMPLOYEES**

# NISSAN CSR SCORECARD

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 (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
Respect for Diversity	Promotion of diversity through active utilization of female talent	Ratio of women in managerial positions	Global: 10% Japan (Nissan Motor Co., Ltd.): 6.7% Americas: 12% Europe: 15% (as of April 2012)	Global: 10.3% Japan (Nissan Motor Co., Ltd.): 6.8% Americas: 13% Europe: 16% (as of April 2013)	Global: 10.6% Japan (Nissan Motor Co, Ltd.): 7.1% Americas: 13% Europe: 17% (as of April 2014)	Provide greater value to customers through diversity
		Employee survey score on diversity	Survey not implemented	Survey not implemented	Survey not implemented	
	Promotion of diversity through crosscultural recruitment	Ratio of non-Japanese employees	1.0%	2.0%	2.0%	
Career Development and Learning Opportunities	Build a learning-oriented corporate culture	Trainee satisfaction: Based on annual employee survey scores (on a scale of 1 to 5), taking the lowest of the averages for each course	4.2 or higher	4.3 or higher	4.4 or higher	Create a learning-oriented corporate culture and an organization that allows individual employees to achieve growth
	Support for self-initiated career development	Number of successful applicants under Open Entry (employees can apply for advertised position openings) and Shift Career (employees can apply to the department or occupation of their choice, regardless of availability) Systems	99	94	73	Provide support for career development that emphasizes employees' voluntary action
Building Safe Workplaces	Creating a safe work environment	Lost-time injuries frequency rate (Japan) (Total lost-time injury cases ÷ total working hours × 1 million)	0.35	0.25	0.24	Build and maintain a safe work environment
		Intensity of labor accidents (Japan) (Intensity = total working hours lost + total working hours x 1,000)	0	0	0	
Dialogue with Employees	Enhance management quality and employee motivation based on global employee satisfaction surveys	Improved scores for management quality and employee motivation; ratio of positive responses to questions in employee satisfaction surveys	Global survey not implemented	Global survey not implemented	Global survey not implemented	Improve quality of management in order to realize an organization that inspires and enhances employee engagement

KEY FIGURES	
Consolidated number of employees	142,925
Ratio of managerial posts filled by women (global)	10.6%
Turnover ratio (Nissan Motor Co., Ltd.)	3.8%



# **NISSAN'S APPROACH TO EMPLOYEES**

Nissan strives to create workplaces where employees are motivated to rise to challenges and are able to work safely and comfortably, enjoying full mental and physical health. Nissan ensures employee rights by requiring all its people to respect the human rights of others and forbidding discrimination against or harassment of others based on race, nationality, gender, religion, physical capability, age, place of origin or other reason. Nor may Nissan employees allow such a situation to go unchecked if it is discovered. 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 in eight languages (Japanese, English, French, Chinese, German, Spanish, Dutch and Russian) for employees worldwide. 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 evaluated based on the Nissan Way and they are educated with its principles. Best examples of implementing the Nissan Way are shared globally, and top executives communicate its importance as part of a companywide 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

#### Ocross-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?

#### ② Commit and Target

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

#### O Perform

Are you fully focused on delivering results?

#### Measure

How do you assess performance?

#### 6 Challenge

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

# **FISCAL 2013 PERFORMANCE**

- Expansion of work-at-home initiatives to help employees pursue an appropriate work-life balance (at Nissan Motor Co., Ltd.)
- Successful applicants for Open Entry System to support career development: 70 (at Nissan Motor Co., Ltd.)
- Lost-time injuries frequency rate (global): 1.20

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

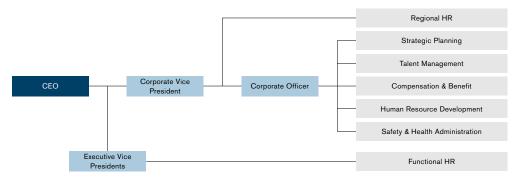
# **FUTURE MEASURES**

- Raise global ratio of women in managerial posts to 14% by April 2017
- Worldwide efforts to enhance strategic human-resource training
- Continuation and improvement of open opinion exchange between managers and employees

# **HR ORGANIZATION**

Nissan maintains a comprehensive human-resource management system on a global basis. There are specialized teams for strategic planning, talent management, compensation and benefits, human-resource development and employee safety and health. Each function reports to the corporate vice president in charge of human-resource matters. These initiatives are managed globally both by region and by function. Also, an organization independent of the Human Resources department exists for diversity promotion.

# Human-Resource Management Structure\*



<sup>\*</sup> As of March 2014.

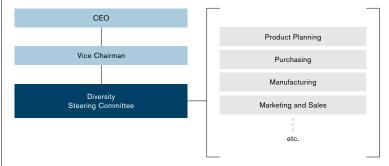
# **RESPECT FOR DIVERSITY**

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.

# **Activities of the Diversity Steering Committee**

Nissan established the Diversity Development Office (DDO) in Japan in October 2004 to play a principal role in promoting diversity as a key business strategy. Since then, the company has worked with offices in North America, Europe and other markets in a variety of ways. A Diversity Steering Committee (DSC), headed by executives representing each business division, has been established to set the direction and apply the PDCA cycle to the promotion of diversity throughout the company.

# Organization of the Diversity Steering Committee



NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

# 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.

The DDO is an office dedicated to promoting diversity, and the team supports efforts to leverage 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.

A key component of turning diversity into a source of corporate strength is to offer flexible working arrangements to allow employees to balance work with other aspects of their lives. Nissan seeks to improve the work-life balance of all employees, regardless of their gender or age, by providing them with the ability to choose a suitable lifestyle for their particular stage in life.

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.

# Nissan's Diversity Initiatives



**Diversity Mindset** 

▶▶ website

Click here for more information on Nissan's diversity.

\* Initiative in Japan.

# Global Initiatives to Support Women's Participation

Since fiscal 2004 the Diversity Development Office (DDO) has been supporting the participation of female employees in two main areas: career development and active participation in the business process.

# Supporting Women's Career Development Around the Globe

The participation of women, particularly in positions of responsibility, is essential to providing diverse value to customers. Nissan focuses on boosting women's presence in all levels of management and carries out 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.

In Japan, the DDO provides personalized support to female employees through individual counseling sessions with career advisors. The office works with Nissan's human-resource divisions to organize activities geared especially 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. Furthermore, interviews with senior female employees contributing in a

variety of fields within the company are posted on the corporate intranet. The DDO promotes young female employees to proactively network with other professional women outside of the company and with women who have risen into management roles in Nissan, who could share their experiences.

A variety of programs to support employees' career development have been implemented in the Americas as well. Mentoring programs have seen participation by numerous employees at Nissan North America, Inc. (NNA), Nissan Canada Inc. (NCI), the Nissan Technical Center North America (NTCNA) and Nissan Mexicana, S.A. de C.V. (NMEX).

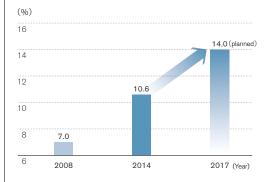
In the AMIE region (Africa, Middle East, India, Europe), Nissan ensures female representation in all development programs. The Women @ Nissan network also supports the company's diversity strategy by organizing various events to provide networking opportunities.

In Asia, Nissan offers a range of activities to promote diversity and women's career development. Through discussion sessions bringing female employees together with executives and young female workers together with women in senior positions, the company aims to deepen its culture of respect for diversity.

As a result of a broad range of efforts, women comprise 5% of general and higher-level managers in Japan (as of April 2014), more than double the 2% in 2008, and a total of 7% of managerial positions are filled by women. This compares favorably to the average of 2.9% for Japanese manufacturers with 1,000 or more employees (according to 2013 statistics from Japan's Ministry of Health, Labor and Welfare).

As of April 2014, women fill 11% of the managerial positions at Nissan globally, up from 7% in 2008. Nissan's plan is to raise the global ratio of women in managerial positions to 14% by April 2017.

### Global Ratio of Women in Managerial Positions



# 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 at 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 participating in workshops. Female employees from Nissan Group companies around the globe are selected to participate in the meeting each year, and 15 employees took part in 2013.

# Inviting Women's Input in the Business Process

In Japan, 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. Globally, too, women have a large say in vehicle purchasing decisions. Adopting female employees' views is essential for meeting diverse customer needs worldwide.

Nissan facilitates input from female employees 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, for example, have benefited from recommendations from women 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, the assembly lines have been optimized for men and women of all ages—and thus, are more efficient and less error prone.

Nissan sales staff must also be prepared to respond to the needs and questions of men and women customers alike. Both male and female customers report high satisfaction with Nissan's female CAs, or car-life advisors, and the company is making efforts to offer training and improve the work environment to give female employees more room to succeed. The Nissan Ladies First Project was launched in fiscal 2013 to introduce shop designs and services with female customers in mind.

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, therefore contributing to the enhancement of customer satisfaction of sales companies. Informal meetings among female TAs are held to promote networking and the sharing of information.

# 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 utilizes such differences to the fullest, to make cultural diversity a source of strength.

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 50% Japanese and 50% non-Japanese.

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.

# Work-Life Balance for Employees

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. Arrangements to help employees of both genders strike an appropriate work-life balance in Japan include "Family Support Leave," which allows an employee to take time off for a wedding, the birth of a child, child rearing or nursing care; reduced working hours and home-based telecommuting for employees to provide childcare or nursing care; and the establishment of "March Land" daycare centers. The first March Land, at the Technical Center in Atsugi, Kanagawa Prefecture, was followed in fiscal 2012 by daycare facilities at the Global Headquarters and at the Nissan Global Information System Center.

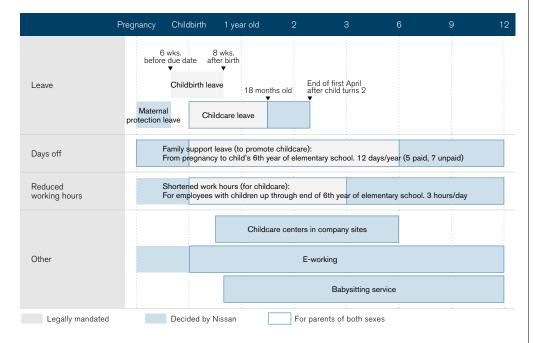
Nissan has been recognized by the Japanese government as a corporation actively promoting childcare support, successfully implementing programs to achieve the goals set forth in the action plan of the Ministry of Health, Labor and Welfare based on an April 2005 law outlining measures to support the development of future generations. Since 2011 the company has held "returnee seminars" to help employees make a proactive return to work after childcare leave with the full understanding and cooperation of those around them. Nissan employees also continue to use the internal social networking site "Work/Life Park" for sharing information to support the balance between their career and childcare needs.

\* Indirect employees.

▶▶ website

Nissan proudly takes part in the Work-Life Balance Promotion Project of Japan's Ministry of Health, Labor and Welfare (Japanese only). Since January 2014, all employees\* in Japan have been able to work at home up to five times a month to improve their work-life balance. They can now choose more flexible working formats and use their time more efficiently thanks to the expansion of this system.

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



# Nissan's Diversity Mindset

Nissan presents CEO diversity messages for the entire Group via the website and carries out regional diversity events and diversity training for employees all around the world. In fiscal 2012, at a small town-hall-style meeting, the CEO discussed diversity directly with Nissan employees of diverse nationalities, genders and ages at Global Headquarters. All employees can watch the video posted on the intranet site to learn about the company's diversity vision.

In Japan, those newly assigned to the post of manager undergo a training program that helps them understand the importance of diversity, learn how to best utilize employee diversity and think about how diversity can be useful in the company's business activities. In addition, Nissan executives post articles on the company intranet discussing their views on diversity as well as their own personal experiences. These personalized messages from the management encourage the development of a diversity mindset among employees.

In the United States, a program of guest executive seminars brings leaders of other companies to share their insight with Nissan managers and employees. This program has in particular featured presentations on diversity-related themes, bringing noted corporate officers and authors to explain how diversity can be a channel for innovative solutions to a broad range of issues companies face today.

In the AMIE region, Nissan has designed a "multicultural effectiveness training" program to raise awareness of cultural differences and to support all employees working in a multicultural environment.

# 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.

In Japan, 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 Americas, 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, R&D facility in Farmington Hills, Michigan, and the Dallas-based Nissan Motor Acceptance Corporation, as well as at production facilities in Smyrna and Decherd, Tennessee, and Canton, Mississippi.

BSTs link Nissan's diverse workforce under a common theme, and members have highly specialized knowledge. There are currently 15 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 BSTs supporting generational, veterans and wellness diversity initiatives.

In 2013, the WBST began a program to encourage young women to consider careers in technical fields by partnering with Microsoft Corp. It organizes "Digigirlz," a one-day event in which high-school-aged 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 and programs in which high-school girls can experience what it is like to pursue an engineering career.

In 2013, a Generational BST was established in Dallas, Texas, and a Gay-Straight Alliance BST was set up in Franklin, Tennessee. New teams expected to be launched include an Innovation BST in Stanfield, Arizona, and regional BSTs to help the company meet its regional sales and marketing targets.

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 human resources, 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 woman-owned 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.

# Recognition for Nissan's Efforts

Nissan's efforts to enhance its diversity and the value it places on a diverse workforce have not gone unnoticed.

In 2013, the company took the grand prize in the J-Win Diversity Awards, presented by the NPO Japan Women's Innovative Network. In March 2014, J-Win named Nissan Vice Chairman Toshiyuki Shiga—who chairs the Diversity Steering Committee—the winner of the Top Executive Award in its Individual Prizes. J-Win presents prizes to companies that show proactive, innovative approaches to the recruitment, skill development and promotion of women.

The Japanese Ministry of Economy, Trade and Industry (METI) launched its Diversity Management Selection 100 program in fiscal 2012 to recognize companies that have enhanced corporate value through diversity-minded management practices. Nissan was one of the companies recognized in the program's inaugural year. Nissan was also selected by the Tokyo Stock Exchange, Inc. (TSE) for inclusion on its Theme Issues List for investment in 2013 and again in 2014, earning a spot as a Nadeshiko (active utilization of women) brand.

These awards are a clear sign that Nissan's executive 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
2007	Kurumin Mark	Ministry of Health, Labor and Welfare
2008	Catalyst Award	Catalyst Inc. (U.S.)
2008	Grand Prize, First Annual Diversity Management Awards	Toyo Keizai, Inc.
2012	Environmental, Social and Governance (ESG) Theme Issue List	TSE
2013	Nadeshiko Brand	METI and TSE
2013	Grand Prize, J-Win Diversity Awards	J-Win
2013	Diversity Management Selection 100	METI
2014	Perfect Score (100) in Corporate Equality Index	Human Rights Campaign (U.S.)
2014	Nadeshiko Brand (2nd straight year)	METI and TSE
2014	Executive Award (Individual Prize) for Vice Chairman Shiga, J-Win Diversity Awards	J-Win

# Future Issues in Promoting Diversity

It has been 10 years since Nissan announced its proactive commitment to diversity. The company will continue working to promote women to senior decision-making positions and to raise the quality of the work-life balance for all employees. Encouraging every employee to review how they manage their assignments will lead to flexible working styles and higher performance. Through ongoing efforts including those to facilitate women's emergence as the next generation of leaders, Nissan continues to pursue gender and other forms of diversity that will yield bigger results and produce additional innovations.

# **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 2013, 185 employees applied for 96 open posts, and 70 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 Our Headquarters in Japan

	FY2011	FY2012	FY2013
Number of trainees	11,012	13,834	13,078
Total hours in training	332,897	411,727	393,370
Hours per trainee	13.7	16.9	16.6
Trainee satisfaction (out of 5)	over 4.2	over 4.3	over 4.4
Investment per trainee (¥)	89,000	67,200	70,000

# Nissan Learning Center

The Nissan Learning Center is a specialized training institute established to offer employees high-quality and timely skill development opportunities. Nissan believes that employees are the company's most important resources and gives special attention to raising their motivation. 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

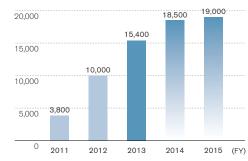
The auto industry today is marked by the rapid pace of innovation and increasing technological sophistication. To maintain and develop Nissan's *monozukuri* tradition of careful craftsmanship that underpins the company's internationally competitive product manufacturing, individuals who have an understanding of the latest technologies that go into building an automobile

and have a well-rounded personality with outstanding management skills are needed. Monozukuri University was thus set up within the Nissan Learning Center to develop capable leaders on an ongoing basis and to 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, the School of On-Site Management and the School of Engineering.

# **Technical Education Around the World**

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

# Global Training Program Participants from R&D Divisions



Note: Figures for 2014 onward are based on current plan.



\* Click here for more information on Nissan Power 88.

# 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 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 sharing 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 company's hard-won 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. They consist of group sessions for intensive training in business skills; action-based learning that has participants tackle issues actually facing Nissan; and cultural diversity training 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 midcareer workers and those at the middle-management level.

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.

### 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 2013, the system's eighth year, Nissan designated 47 employees as Expert Leaders and two management-level employees as Nissan Fellows in a total of 96 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 to let all employees 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. The workplace on hot summer days can be physically very taxing, and there is even the danger of heatstroke. Nissan has therefore 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.

An internationally recognized standard for occupational safety and health management systems. Certification may be issued by a third-party accrediting body.

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 have also been offered training in SES and F-PES in preparation for the implementation of these programs at Nissan facilities worldwide from fiscal 2014.

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 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**

#### Lost-Time Injuries Frequency Rate<sup>11</sup>

Total lost-time

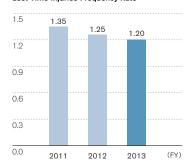
2 Total lost-time

injury cases ÷ total working hours × 1 million

ergonomics-related injury

cases + total working

hours × 1 million



# Lost-Time Ergonomics-Related Injuries Rate 2



# **Specialized Mental Healthcare**

Nissan has put together a specialized team led by a mental health professional to care for the mental health of employees. In fiscal 2005, in cooperation with external mental healthcare specialists the company introduced the EAP (Employee Assistance Program), 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.

# **DIALOGUE WITH EMPLOYEES**

Nissan actively seeks the opinions of employees through surveys, using the results to improve management quality and employee motivation. The company also ensures that information is shared with all employees around the world without delay.

#### **Employee Surveys**

Nissan carries out surveys to get employee input and suggestions for improvements. The results of these surveys are used to identify the strengths of the company as a whole and those of individual divisions, as well as areas for improvement. Nissan then works to make improvements that will lead to the creation of a better work environment for employees and to continued company growth. The results of these efforts are analyzed for the company as a whole and for each region and department. Based on these analyses, each level of management formulates and carries out action plans tailored to specific needs.

# **Enhancing Communication Tools**

Nissan has introduced a corporate intranet system called WIN (Workforce Integration @ Nissan) as a tool to promote communication and information sharing. The company continually updates the system with new technologies while encouraging employees to make active use of it for internal communication and collaborative activities. The WIN network now goes beyond Japan, North America and Europe to include other markets and Nissan's major business partners. Internal newsletters and in-house video broadcasts also provide publicly released information, as well as original news items prepared by Nissan's internal communication departments, to be shared by all employees at Nissan production sites with no time lag.

To help employees gain a deeper understanding of Nissan's products and the ability to convey their features and attractiveness to others more effectively, the company holds new model announcements and test drive events for employees. These are received very positively, 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 effective in creating "brand ambassadors" for Nissan.

# N-Square, a Tool for Employee Exchange (Japan)

Nissan has operated N-Square, an internal social networking service for employees, in Japan since fiscal 2009. Users form communities based around various themes, improving interaction with one another and gathering information they need. There are now more than 300 communities registered in the service.

The need for social networking services is on the rise, and Nissan plans to improve and expand them for employees.

# **Employee-Executive Exchange**

Nissan holds opinion-exchange meetings involving executives and employees as a means of building trust through clear and transparent communication. These meetings are held frequently at Nissan's Global Headquarters in Japan as well as the company's business offices elsewhere around the world. These meetings give company leaders a venue to inform employees about the current situation of the company and to deliver key management messages. They also provide employees with opportunities to ask questions and voice their concerns in a direct, open manner.

Their topics cover everything from business in emerging countries to environmentally friendly technologies, quality and brand issues in line with the six pillars of the Nissan Power 88 mid-term business plan. The company also holds workshops for all employees, with executives as speakers. These meetings will continue as important channels for two-way communication. Nissan also seeks the opinions of employees through regular surveys, the results of which are conveyed to management.



# **ECONOMIC CONTRIBUTION**

# NISSAN CSR SCORECARD

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 (Scope of Application)	FY2011	FY2013	FY2013	Long-Term Vision
Acceleration of profitable corporate growth	Implementation and promotion of Nissan Power 88	Consolidated operating profit margin (Consolidated companies; for joint venture in China, calculated on a proportionally consolidated basis)	5.8%	5.4%		Target sustainable, profitable growth by advancing a sustainable mobility society; continue providing value to all stakeholders over the long term
		Global market share (Consolidated companies)	6.4%	6.2%	6.2%	

# **KEY FIGURES**

Consolidated number of employees 142,925

Automobile production sites 19 countries/areas

Total tax paid ¥96.4 billion



- → GRI G4 Indicators
- ▶ G4-6/G4-9/G4-EC1



▶ website

Information on Nissan Power 88 is also available on our website.

# **NISSAN'S APPROACH TO ECONOMIC CONTRIBUTION**

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 in order to maximize its corporate value.

#### **FISCAL 2013 PERFORMANCE**

- Second Aguascalientes Plant started operations in Mexico (annual production capacity of 175,000 units)
- Resende Plant started operations in Brazil (annual production capacity of 200,000 units)
- Dividend: ¥30/share (payout ratio 32.3%)

# **FUTURE MEASURES**

- By introducing strong products and technologies, enhancing brand and sales power and effectively investing in global capacity, the company aims to achieve the goals of Nissan Power 88 and further sustainable growth.
- The company targets a minimum dividend payout ratio of 30%.

# **COMPANY ORGANIZATIONS FOR ECONOMIC CONTRIBUTION**

The Nissan Group consists of Nissan Motor Co., Ltd., subsidiaries, affiliates and other associated companies. Its main activities include the manufacturing and sales of vehicles and related parts in its automotive business, as well as the manufacturing and sales of boats and related parts in its marine business. The Group also provides sales finance services to support sales activities.

Nissan's Global Headquarters makes decisions about the allocation of resources to each business and manages the operations of the entire Group. Through December 2013, the Group had three regional management committees responsible for activities in Asia and Oceania, the Americas (North and Latin America) and AMIE (Africa, the Middle East, India and Europe), respectively. These regional structures were integrated with cross-regional departments for functional axes including research and development, purchasing and manufacturing.

In January 2014, the Group moved to a six-region structure to meet market needs more precisely.

# **ACCELERATING PROFITABLE CORPORATE GROWTH**

Nissan plays a leading role in the global automotive industry, contributing greatly to its development. The company is committed to providing optimum mobility to the people of the world and helping to address a broad range of issues to realize a sustainable mobility society. Another key objective is creating and delivering new value through innovation. Sustained, profitable corporate growth is vital to achieving these goals, and the mid-term business plan Nissan Power 88 actively targets acceleration of corporate growth. By fully leveraging its capabilities as a corporation, 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. These efforts continue as Nissan pursues a suitable level of profit and increases the value created for society.

# Strategic Investment in Focus Areas and Markets

To accelerate its growth in global markets, the company must expand its business and provide products that meet the needs of customers. Datsun has returned as the company's third global brand alongside Nissan and Infiniti. In March 2014 the Datsun Go went on sale in the Indian market. In Indonesia, the company unveiled the Datsun Go+, a practical, five-door, three-row multipurpose vehicle, and announced the introduction of the Datsun Go. Datsun will provide a sustainable motoring experience to up-and-coming customers in high-growth markets. The Datsun on-DO has been unveiled in Russia, and the brand will be introduced in South Africa later this year.

In the Americas, Nissan's new plant in Aguascalientes, Mexico, started operations in November 2013. It has an annual production capacity of 175,000 units, boosting overall capacity in the country by 25% to more than 850,000 units per year. The new plant also provides more than 3,000 new jobs and over 9,000 indirect jobs. In Brazil, now the world's fourth-largest automobile market, a new Nissan plant in Resende in the state of Rio de Janeiro went online in February 2014. The Resende Plant has an annual capacity of 200,000 V-Platform vehicles for the Brazilian market. These facilities bring Nissan's annual production capacity to more than 2 million vehicles in the Americas.

In the ASEAN region, the Myanmar market, which reopened in 2011, is in the spotlight. Nissan and Tan Chong Motor (Myanmar) Co., Ltd., received a completely knocked down (CKD) license, allowing export of major parts from Japan for local assembly in Myanmar. A new plant to be constructed in the Bago region will start manufacturing the Nissan Sunny in 2015, with a planned initial workforce of 300. Nissan is the first global automobile manufacturer to establish a presence in the country following its 2011 reopening to the world, and it is committed to help develop its automotive industry.

# **Innovation Management**

The world today faces challenges including low birthrates, aging populations and environmental problems. One of Nissan's major missions is the creation of new value that contributes to the future of mobility. Research centers in Japan, the United States, India and Russia observe social trends and conduct research into how to respond to tomorrow's automotive society. The Nissan Research Way is the basis for innovation that can identify, suggest and deliver new value. The Nissan Research Way's three pillars are "to forecast technology and social change," "to create open innovation with the world's intellectuals" and "to develop competitive technologies in strategic domains."

By giving multispecialist researchers full support for their innovative work, the company pursues continual improvement of the Nissan Research Way.

In February 2013, the Renault-Nissan Alliance opened the Nissan Research Center Silicon Valley in California. This innovation hub enables partnerships with the world's most cutting-edge companies and academic research bodies toward the realization of mobility that meets the needs of the future.

The Silicon Valley facility's main research fields include autonomous vehicles that will help create a future with safe, stress-free mobility; connected vehicles that can tap into infrastructure and the Internet to maximize energy and time efficiency; and Human Machine Interfaces that enhance the experience of autonomous and connected vehicles.

# STAKEHOLDER ENGAGEMENT

Nissan's shareholders and investors are partners in the creation of a more sustainable society. To facilitate a deeper understanding of the company, Nissan carries out IR activities frequently to provide information promptly and transparently.

#### 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.

In fiscal 2013, the company saw considerable interest in its minicar business. The DAYZ is the first minicar in whose development Nissan participated from the product planning phase, as well as the first model planned and developed by NMKV Co., Ltd., a joint venture formed by Nissan and Mitsubishi Motors Corporation. At the launch of the DAYZ, IR held a minicar business briefing for securities analysts and institutional investors. The company also conducted a plant tour in China in collaboration with its subsidiary Jatco Ltd. and supplier Unipres Corporation to increase understanding of its operations in the country, where signs of recovery are evident following slow sales caused by the political tension between Japan and China.

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

# 114th Shareholders Meeting

The 114th Ordinary General Meeting of Shareholders was held at the Pacifico Yokohama on June 25, 2013, and was attended by 1,379 shareholders. After the meeting all board members and corporate officers, including CEO Carlos Ghosn, attended an informal gathering to interact directly with shareholders. On June 22, prior to the General Meeting, 200 shareholders were selected by lottery to experience Nissan's automotive technology at an event at the Oppama Plant in Kanagawa Prefecture.

The General Meeting of Shareholders is a valuable chance for the executive team to communicate directly with the company's owners. Nissan aims to develop the trust relationship 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, the Oppama Plant event has 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. This exchange with shareholders provides valuable information for the General Meeting that follows.

# Positive External Assessment for IR Activities

At the 19th Awards for Excellence in Corporate Disclosure presented by the Securities Analysts Association of Japan, Nissan ranked first in the automobiles, auto parts and tires category for the seventh consecutive year. The awards were established with the goal of improving corporate disclosure. Winners 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 executive management's proactive participation in investor relations and its voluntary disclosure on corporate governance and business activities.



# CORPORATE GOVERNANCE & INTERNAL CONTROL

In order to be a sustainable company, Nissan must display a high level of ethics and transparency, as well as a strong foundation for the organization. To continue earning stakeholder trust and to ensure compliance, Nissan institutes a corporate governance system that maintains business transparency and effectively manages risk.

\_\_\_p. 98

\_\_p. 99

p. 102

# **CORPORATE GOVERNANCE & INTERNAL CONTROL**

# NISSAN CSR SCORECARD

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 (Scope of Application)	FY2011	FY2012	FY2013	Long-Term Vision
Internal Control System & Compliance	Compliance/Code of Conduct	Establishment/global development of compliance promoting organizations and codes of conduct	Clarified compliance-related risks and confirmed action plans for each region in the Global Compliance Committee; regularly followed up progress thereafter  Formulated medium-term regional action plans (FY2011–13)  Launched anti-bribery activities in line with expanding scope of Nissan's business; defined global policy, reached decision to implement related training	Discussed priority topics at the Global Compliance Committee and incorporated them into action plans for each region. Regularly monitored implementation status     Established a Global Anti-Bribery Policy and implemented global training	Updated Japanese version of Nissan Code of Conduct (undertaken every three years) and held training for all Nissan Motor employees     Implemented new professional training on export controls in Japan     Reinforced cooperation with affiliated companies to ensure thorough compliance with export controls     Started externally run Nissan Compliance Hotline for reporting internal compliance issues in Japan, supplementing reporting channels within the company	A fully functioning framework (process) for the prevention of conduct violations
Risk Management	Risk Management	Establishment/global development of an effective risk- management system	Reviewed responses to Great East Japan Earthquake for each function; reflected results in the BCP and shared the findings throughout the company; verified progress through further simulation training, enhancing level of readiness  Disclosed information on risk management activities via Annual Report and Sustainability Report, adding items and updating content of disclosure  Re-implemented benchmarking activities following Renault's shift to new system	Identified corporate risk factors that could negatively affect the mid-term plan. Under the lead of risk owners, established control methods and implemented the necessary risk-reduction activities     Updated "Business and other risks" in financial information (Yukashoken-Hokokusho) and "The current state of Nissan's risk management" in Sustainability Report and Annual Report     Activities reported twice a year to the Internal Control Committee and Board of Directors to ensure that the PDCA management cycle is functioning	Identified corporate risk factors that could negatively affect the mid-term plan; under the lead of risk owners, established control methods and implemented necessary risk-reduction activities; promptly managed clear risks and implemented PDCA cycle to take preventive action against reoccurence      Updated "Business and other risks" in financial information (Yukashoken-Hokokusho) and "The current state of Nissan's risk management" in Sustainability Report and Annual Report      Activities reported twice a year to the Internal Control Committee and Board of Directors to ensure that the PDCA management cycle is functioning companywide	Contribute to raising corporate value with a global risk-management system; obtain better external understanding through appropriate information disclosure
	Information Security	Addressing personal data protection issues and establishment of stable information security	Continued monitoring compliance with personal information safeguarding policies at Nissan Motor and its sales companies, confirming that level was maintained or improved Globally implemented, tracked progress in annual information security management plan, confirming that level was maintained or improved Implemented process for monitoring information security incidents that occurred outside of Nissan and confirmed that similar issues could not take place within the company	Continued monitoring compliance with personal information safeguarding policies at Nissan Motor and its sales companies, confirming that level was maintained or improved  Based on the Information Security Policy, held Information Security Committee, implemented annual education, managed information assets, managed incidents, implemented PDCA cycle for assessment, and verified that the levels are being maintained or improved  Learning from recent server attacks and socialengineering-related information security incidents at other companies, verified and made improvements to ensure that similar incidents do not occur at Nissan	Continued monitoring compliance with personal information safeguarding policies at Nissan Motor and its sales companies, confirming that level was maintained or improved      Based on the Information Security Policy, held Information Security Committee, implemented annual education, managed information assets, managed incidents, implemented PDCA cycle for assessment, and verified that the levels are being maintained or improved      Verified and made improvements to ensure that server attacks and social-engineering-related security incidents do not occur at Nissan	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 cornerstones: 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.

# **FISCAL 2013 PERFORMANCE**

- Updated the Nissan Code of Conduct (done every three years) and conducted training for all Nissan Motor Co., Ltd. employees
- Implemented new training on export control specialists; also reinforced cooperation with affiliated companies to ensure compliance with export controls
- Began externally operated Nissan Compliance Hotline for reporting internal compliance issues in Japan to supplement internal reporting channels

# **FUTURE MEASURES**

- Continue to strengthen corporate governance & internal control on a global basis
- Implement unified global e-learning on export controls and prevention of bribery and corruption in fiscal 2014

# **CORPORATE GOVERNANCE SYSTEM**

Nissan believes that enhancing its 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 its stakeholders and discloses its performance promptly with a high degree of transparency.

# 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 they make 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.

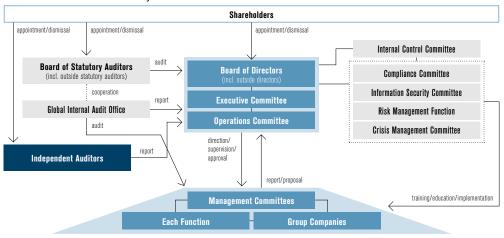
# Internal Control Systems

Nissan places high value on transparency in its corporate management, both internally and externally. The company focuses on consistent and efficient management in order 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 the Internal Control Systems to pursue these goals and on 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.

#### ▶ website

 Click here for more information on the Board of Directors. 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 Internal Audit Office, making use of this information for their own audits.

#### Nissan's Internal Governance System



\* As of March 2014.

# **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.

# COMPLIANCE

In promoting corporate social responsibility (CSR), it is essential that each employee practices compliance with high ethical standards. In order to raise compliance awareness throughout the company, Nissan has established specialized departments and appointed officers to promote compliance policy in each region where it operates.

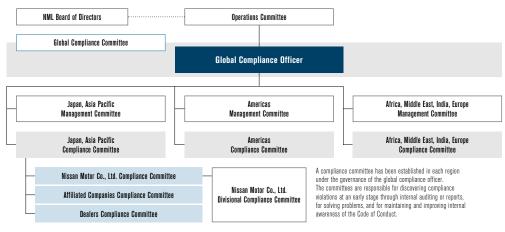
# **Employees and Compliance**

The foundation of Nissan's CSR promotion is based on each employee's capability to practice compliance with an ethical view. 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\_101

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

# FY2013 Global Compliance Committee Organization



\* As of March 2014.

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 of the regions in which it operates to form a system for preventing illegal and unethical behaviors. Nissan is working with all regions and bases of operation to ensure full awareness of compliance issues and engage in prevention of illegal activities. Nissan deals severely with any employee who violates or infringes upon the Global Code of Conduct or the laws.

# Security-Related Export Controls

Nissan thoroughly complies with the laws and regulations of Japan and the other countries where it operates, giving full consideration to the requirements of the international community. Part of this effort includes the company's initiatives aimed at contributing to global peace and security. Nissan has established export control rules in line with local countries' laws and regulations, Japanese laws and U.S. re-export regulations to prevent the proliferation of weapons of mass destruction, conventional weapons and any goods or technologies used for their development. 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 function sets control process and monitoring mechanisms to ensure compliance with security-related export controls. The company strictly applies this process to its operations.

To fully enforce as well as improve the level of internal control, the Export Control function and associated business functions at Nissan conduct employee training on export control. In addition to e-learning and other basic training, employees in applicable departments have been receiving comprehensive training on export classification from professional organizations since 2013.

Affiliated companies also strictly adhere to the same export control rules, thereby enhancing the overall compliance level in the Nissan Group. Nissan reinforces monitoring and facilitates best practices sharing at affiliated companies. Furthermore, to raise awareness at the management level in affiliated companies, Nissan provides explanations to executives and makes every effort to ensure compliance with security-related export controls.

# Global Export Control Policy Framework



# **Promoting Thorough Compliance**

Nissan has established a Global Code of Conduct and has appointed 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 an e-learning or video training course 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 across-the-board understanding, making sure all employees are fully aware of compliance issues. A number of education programs to promote compliance are held regularly for employees in North America, and a set of universal guidelines have been drawn up for each country in Europe. Nissan is also carrying out compliance-related training in other regions based on guidelines that take into account conditions in each country. Moreover, all groupaffiliated companies have introduced their own codes based on the Nissan Global Code of Conduct.

Additionally, 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 regulations in place, Nissan is working to prevent compliance infractions.

#### ▶ website

<sup>\*</sup> Click here for more information on Nissan's global anti-bribery policy.

#### **Global Code of Conduct for the 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
  - e best interests of Nissan are expected to be foremost in the minds of employees. It is prohibited to behave, act or use ormation 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.
- 6 Be Transparent and Accountable
  - lissan employees shall make fair, transparent, timely and appropriate disclosure of the Company's business activities to our takeholders, including stockholders, customers, other employees and local communities.
- 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 get be tolerated.
- Be Environmentally Responsible
  - issan employees shall strive, within the business objectives of Nissan, to consider environmental protection when developing oducts 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.

# 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 accept, 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, 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 allow employees to submit opinions, questions or requests to the company, thereby improving workplaces and operations as well as fostering a compliance-oriented corporate culture.

In Japan, Nissan's Easy Voice System, which offers full protection to any persons offering information in accordance with Japan's Whistleblower Protection Act of April 2006, 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 external Nissan Compliance Hotline, which began operations to further promote ethical business practices. Using this system, employees can report compliance issues under their real name or anonymously either via the Internet or by telephone. Experienced counselors at a third-party organization take appropriate action, such as by passing along information to departments or organizations that can take 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 the United States, Canada, Mexico and Brazil, Internet 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 Asia and Europe. Employees reporting issues through internal reporting systems are protected and do not suffer any detriment.

#### ▶ page 108

Click here for more information on risk management in the CSR Data section.

# **RISK MANAGEMENT**

Nissan defines risks 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.

In order to respond swiftly 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 company's "risk map" in line with impact, frequency and control level.

The Executive Committee makes decisions on risk issues that must be handled at the corporate level and designates "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 the 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 do materialize. Nissan Group companies in Japan and overseas are strengthening communication in order 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 "Companywide 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 setup allowing quick restoration of production after 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 recognizes its social responsibility to properly handle customers' personal information in full compliance with Japan's Personal Information Protection Act. Nissan has set up internal systems, rules and procedures for handling personal data. All group companies in Japan are fully enforcing these processes.

Moreover, Nissan shares with group companies worldwide, its Information Security Policy as its basis to reinforce overall information security. The company's Information Security Committee implements measures as necessary to further strengthen information security in order to prevent information leaks and other such incidents. To thoroughly educate and motivate employees to uphold their responsibilities in this regard, the company institutes regular in-house educational programs every year. Nissan enhances training by providing training materials to all Japanese sales companies with the primary aim of reinforcing personal data protection at these companies.



▶▶ website

\* Click here for more information on Nissar Power 88.

➤ Click here for the GRI Sustainability Reporting Guidelines Index

# **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, 2014)	142,925
	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 2014)	Design: 5 countries (Japan, USA, U.K., China, Brazil; total of 7 sites)
	Automobile Production: 19 countries/areas (Japan, USA, Mexico, Brazil, U.K., Spain, Russia, China, Taiwan, Thailand, Indonesia, Malaysia, Philippines, Vietnam, India, Pakistan, South Africa, Kenya, Egypt; total of 33 sites)



**▶ GRI G4 Indicators ▶ G4-4/G4-5/G4-9** 

# **FINANCIAL DATA**

					(FY)
					billion yen
	2009	2010	2011	2012	2013*
Consolidated net revenue	7,517.3	8,773.1	9,409.0	9,629.6	10,482.5
Consolidated operating profit	311.6	537.5	545.8	523.5	498.4
Ordinary profit	207.7	537.8	535.1	529.3	527.2
Profit before tax	141.6	480.1	529.3	516.7	529.4
Net income	42.4	319.2	341.4	342.4	389.0
Capital expenditure	273.6	312.0	406.4	524.5	536.3
Depreciation	363.3	372.1	334.4	315.8	347.1
R&D costs	385.5	399.3	428.0	469.9	500.6

					triousariu uriits
Global Sales Volume	3,515	4,185	4,845	4,914	5,188
Japan	630	600	655	647	719
China	756	1,024	1,247	1,182	1,266
North America	1,067	1,245	1,404	1,466	1,648
Europe	509	607	713	660	676
Others	553	709	826	959	879

					thousand units
Consolidated Production Volume	2,954	3,755	4,266	4,310	3,760
Japan	1,025	1,073	1,199	1,060	1,000
North America	837	1,074	1,221	1,344	1,558
Europe	445	571	647	643	683
Others	647	1,037	1,199	1,263	519

\* Since the beginning of fiscal 2013, Nissan has reported figures calculated under the equity method accounting for its joint venture with Dongfeng in China.

▶ website

Click here for more detailed financial information at Nissan's IR website.



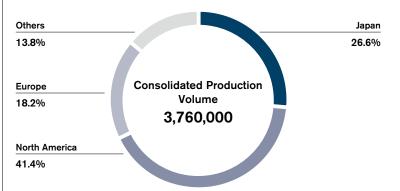
→ GRI G4 Indicators

▶ G4-8/G4-9

# FY2013 global sales volume and consolidated production volume



Region	% of global sales volume	thousand units
Japan	13.9%	719
• China	24.4%	1,266
<ul><li>North America</li></ul>	31.8%	1,648
<ul><li>Europe</li></ul>	13.0%	676
Others	16.9%	879



Region	% of production volume	thousand units
<ul><li>Japan</li></ul>	26.6%	1,000
<ul><li>North America</li></ul>	41.4%	1,558
<ul><li>Europe</li></ul>	18.2%	683
Others	13.8%	519



➤ GRI G4 Indicators ➤ G4-8/G4-9

# **EMPLOYEE DATA**

			(FY
	2011	2012	201
lissan Motor Co., Ltd.			
Number of employees	24,240	23,605	23,08
Male	22,327	21,675	21,15
Female	1,913	1,930	1,93
Average age (years)	42.8	42.6	43.
Male	43.0	43.1	43.
Female	37.8	37.9	37.
Average service (years)	20.5	20.5	19.
Male	20.9	21.0	19.
Female	14.7	14.7	14.
Employee turnover rate	2.9*2	4.1*2	3.
Voluntary leave	0.7	1.0	0.
Company initiated	2.2	3.1	2.
Average annual salary (yen)*1	7,058,538	6,996,504	7,665,07
Disabled employment ratio	1.95	1.88	2.0
Number of employees taking parental leave	192	219	23
Male	7	6	
Female	185	213	23
Ratio of returnees from parental leave	98	99	9
Male	100	100	10
Female	98	99	9
Number of employees taking nursing care leave	9	17	
Male	7	11	
Female			
	185	213	
Number of employees taking maternity leave			23
Days of paid holiday taken	18.1	17.7	18.
Taken paid holiday ratio	90.5	88.5	91.
Average overtime hours/month	17.5	19.9	18.
Number of unionized employees	23,122	22,865	22,19

<sup>&</sup>lt;sup>11</sup> 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.

<sup>22</sup> Updated from Sustainability Report 2013 due to scope change.

			(F)
	2011	2012	201
Number of female managers	176	170	18
Ratio	6.7	6.8	7.
Target	10	0% in FY2016	
General and higher-level managers	34	38	4
Ratio	4.1	4.7	5.
Number of female corporate officers	1	1	
Ratio	2.1	2.1	2
Target	(1	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			
Bachelor/master graduates	208	219	3
Male	155	157	2
Female	53	62	
Others	206	196	2
Junior college, tech school graduates	18	19	
High school graduates	188	177	1
Retention			
Number of new recruits 3 years ago	279	46	2
Male	207	44	1
Female	72	2	
Number of the above 3 years later	263	46	2
Male	197	44	1
Female	66	2	

			(FY)
	2011	2012	2013*2
Consolidated			
Consolidated number of employees <sup>-1</sup>	157,365	160,530	142,925
	(34,775)	(36,449)	(21,750)
Japan	69,141	67,290	65,480
North America	24,702	28,637	32,272
Europe	14,725	15,198	15,931
Asia	46,516	46,187	24,383
Other overseas countries	2,281	3,218	4,859

Numbers in brackets represent part-time employees not included in the consolidated number of employees.

#### 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 labormanagement relations of the company are stable, and the number of union workers was 22,196 as of March 31, 2014.

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 (UK) 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**

(FY)

	2011	2012	2013
Donations for disaster relief	¥11.9 million (by Nissan Motor Co., Ltd. for Great East Japan Earthquake)	¥17.0 million (by Nissan Motor Co., Ltd. for Great East Japan Earthquake)	¥12.0 million (by Nissan Motor Co., Ltd. for Great East Japan Earthquake)
	¥10.0 million (by Nissan Motor Co., Ltd. for Typhoon No. 12)	¥10.0 million (by Nissan Motor Co., Ltd. for heavy rains in northern Kyushu)	3.0 million yuan (about ¥48.0 million) (by Nissan Motor Co., Ltd., Nissan [China] Investment Co., Ltd., and Infiniti Business Unit [China] for Sichuan earthquake in China)
	¥55.1 million (by Nissan Motor Co., Ltd. and Nissan Motor [Thailand] Co., Ltd. for 2011 Thailand floods)	€100,000 and a vehicle (by Nissan International SA and Nissan Italia S.r.I for Northern Italy earthquakes)	¥20.0 million in total (by Nissan Motor Co., Ltd. for typhoon in the Philippines)
	¥10 million (Nissan Europe S.A.S., for Horn of Africa crisis)	\$20,000 and a vehicle (Nissan North America, Inc. for Hurricane Sandy)	\$10,000 (by Nissan North America, Inc. for tornado in Illinois, USA)

Global social contributions (FY2013): Approx. ¥1.5 billion (including donations and monetary contributions)

Breakdown of FY2013 social contributions (Nissan Motor Co., Ltd.)

	Activity costs	Monetary donations	Donations of items (value)	Total
Amount (¥ million)	248	232	30	510
% of total	48.6	45.5	5.9	100.0



→ GRI G4 Indicators

G4-EC1



▶ GRI G4 Indicators

► G4-9/G4-10/G4-11/G4-12/G4-38/ G4-EC1/G4-LA1/G4-LA3/G4-LA12

<sup>&</sup>lt;sup>12</sup> Since the beginning of fiscal 2013, Nissan has reported figures calculated under the equity method accounting for its joint venture with Dongfeng in China.

#### THE CURRENT STATE OF NISSAN'S RISK MANAGEMENT

Below we present some of our efforts to address Nissan's corporate risks.

#### Risks Related to Financial Market

#### 1) Automotive

## 1. Liquidity

An automotive business must have adequate liquidity to provide for the working capital needs of normal day-to-day operations, ongoing research and development, capital investment needs for future expansion and repayment of maturing debt. Liquidity can be secured through cash and cash equivalents, internal cash flow generation and external funding.

As of the end of fiscal year 2013 (March 31, 2014), Nissan's automotive business had ¥717 billion of cash and cash equivalents (compared with ¥771 billion as of March 31, 2013). In addition to cash, Nissan had approximately ¥457 billion of committed lines available for drawing as of March 31, 2014.

As for external funding, Nissan raises financing through several sources including bond and commercial paper issuance in capital markets, long- and short-term loans and committed credit lines from banks.

Nissan has a liquidity risk-management policy that is intended to ensure adequate liquidity for the business while at the same time ensuring mitigation of liquidity risks such as unmanageable bunched maturities of debt. In the policy, minimum required liquidity is defined objectively considering several factors including debt maturity, upcoming mandatory payments (such as dividends, investments and taxes) and peak operating cash needs. We also benchmark our liquidity targets with other major Japanese corporations and global auto companies to ensure we are reasonable in our assumptions.

#### 2. Financial Market

Nissan is exposed to various financial-market-related risks, such as foreign exchange, interest rates and commodity prices. Although it is not possible to eliminate all the risks with use of derivative products, Nissan does hedge select currencies and commodity price risks on an opportunistic basis to reduce financial market risks.

#### Foreign exchange

Nissan's products are produced in 20 countries and regions, and are sold in more than 170 countries and regions. Nissan's procurement activities for raw materials, parts/components and services are conducted in many countries.

Nissan faces various foreign currency exposures that result from the currency of purchasing cost being different from the currency of sale to customers.

In order to minimize foreign exchange risk on a more permanent basis, Nissan is working to reduce foreign currency exposure by such measures as shifting production to the countries where vehicles are sold and procuring raw materials and parts in foreign currencies.

In the short term, Nissan may limit risks in foreign exchange volatility within a certain range by using derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

#### Interest rate

The interest rate risk-management policy is based on two principles: long-term investments and the permanent portion of working capital are financed at fixed interest rates, and the non-permanent portion of working capital and liquidity reserves are built at floating rates.

Nissan may hedge risks of interest rate fluctuation by using derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

#### Commodity prices

Nissan purchases raw materials in the form of parts provided by the suppliers, as well as direct purchase. Nissan is exposed to the price fluctuation risks of raw materials, no matter whether purchased directly or indirectly.

For precious metals, which are used in catalysts, Nissan is making continuous efforts to reduce its usage by technological innovation in order to minimize commodity price risk. In the short term, Nissan manages commodity price volatility exposure through the use of fixed-rate purchase contracts in which commodity prices are fixed for a period of time; Nissan may also hedge risks in commodity price volatility within a certain range by the use of derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

#### Marketable securities

Nissan may hold marketable securities for various reasons including strategic holding, relationship management and cash management. Nissan defines the authority for decision concerning such transactions within the internal policies and procedures for risk management. The company also takes measures for these risks including mandatory periodical reporting with fair value of such financial transactions.

#### 3. Counterparties

Nissan does business with a variety of local counterparties, including sales companies and financial institutions in many regions around the world. Nissan is exposed to the risk that such counterparties could default on their obligations.

Nissan has established transaction terms and conditions for operating receivables in Japan and overseas based on credit assessment criteria. These criteria enable Nissan to take measures to protect such receivables, and may include bank letters of credit and/or advance payment requirements.

As for financial transactions including bank deposits, investments and derivatives, Nissan manages its counterparty risk by using an evaluation system based on external credit ratings and other analysis. Nissan enters into such transactions only with financial institutions that have a sound credit profile.

#### 4. Pensions

Nissan has defined benefit pension plans mainly in Japan, the United States and the United Kingdom. The funding policy for pension plans is to make periodic contributions as required by applicable regulations. Benefit obligations and pension costs are calculated using many different drivers, such as the discount rate and rate of salary/wage increase.

Plan assets are exposed to financial market risks as they are invested in various types of financial assets including bonds and stocks. When the fair value of these assets declines, the amount of the unfunded portion of pension plans increases, which could materially increase required cash pension contributions and pension expenses.

As countermeasures to manage such risks, the investment policy of these pension plans is based upon the liability profile of the plans, long-term investment views and benchmark information regarding asset allocation of other global corporations' pension plans.

Nissan holds Global Pension Committee meetings on a periodic basis to review investment performance, manager performance and asset allocations and to discuss other issues related to pension assets and liabilities.

#### 2) Sales Finance

#### 1. Liquidity

Nissan operates majority owned captive sales finance companies in Japan, the United States, Canada, Mexico, China, Australia, Thailand and Indonesia. In addition, Nissan is a minority shareholder in a sales finance company (bank) in Russia. In these countries, banks and other financial institutions also provide financing solutions to Nissan's customers and dealers.

In Europe and other regions, RCI Banque and several other banks/ financial institutions are providing financing to Nissan's customers and dealers.

We monitor the liquidity of sales finance companies on an ongoing basis to ensure we have adequate liquidity to meet maturing debt and continue operations. According to its policy, Nissan aims to match maturity of liabilities with maturity of assets wherever possible. In some of the countries where Nissan operates, long-term capital markets are not developed and thus it is not always possible to be perfectly match-funded. Match-funding policy allows us to meet maturing debt obligations even in an environment in which we cannot raise additional debt due to the state of capital markets.

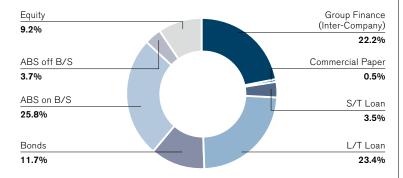
In addition to match-funding, we manage liquidity risk in sales financing through several measures including keeping adequate liquidity in the form of cash and unutilized committed lines, unencumbered assets (mainly vehicle loans and leases), liquidity support from auto operations to the extent we have excess cash in auto operations, diversified funding sources and geographical diversification of capital market access.

As of March 31, 2014, sales finance companies' liquidity (cash and unutilized committed lines) was approximately ¥745 billion. Additionally, we have a healthy mix of secured (29.5%) and unsecured and other (70.5%) funding sources, which support a stronger balance sheet and incremental liquidity through utilization of unencumbered assets.

The pie chart on the following page describes our diversified funding sources in sales finance business.

During fiscal year 2013, we were able to raise new funding through bank loans, asset-backed securities, asset-backed commercial paper, commercial paper and bonds reflecting our diversified access to financing instruments.

#### Sales Finance Business Funding Sources (As of March 2014)



#### 2. Interest Rate Risk Management

The sales financing business is exposed to interest rate risks. Interest rate risk is defined as the potential variance in the earnings of an entity or the fair value of the portfolio that would result from a fluctuation in the general level of market interest rates where funds with differing fixed-rate periods or differing terms are financed and invested.

Nissan measures the risks by using the sensitivity analysis with various interest rate scenarios and determines the risk tolerance level. Nissan controls the interest rate maturities of both assets and liabilities to maintain the risks within an acceptable tolerance level.

The sensitivity analysis mentioned above uses statistical models, such as the Monte Carlo Simulation Method; however, the actual fluctuation of market interest rates and its impact may deviate significantly from the assumptions used in the models. Nissan enters into interest rate derivative financial instruments to maintain the potential variability of interest rates at the desired level of risk exposure. The main objective of these transactions is to mitigate the risks and not to pursue speculative profit maximization.

#### 3. Credit Risks

Nissan is exposed to the risks of failure to recover the full value of financial receivables for its Auto credit and Lease business with retail customers and for its Dealer finance business, due to changes in the economic situation and credit quality of customers. Nissan manages the credit risks closely by

establishing an effective screening and collection system and structure. Credit applicants are all subject to credit assessments of their creditworthiness under a detailed scoring system. Based on the information directly obtained from applicants and from credit bureaus, loan authorization is made in a comprehensive manner by considering the following points: applicant's credit history; applicant's capacity to pay, which is estimated by debt ratio, payment to income ratio and disposable income; applicant's stability; and loan conditions including the loan collateral, loan advance and payment terms. In addition to carrying out this screening process, whenever required, Nissan takes into account qualitative information by conducting field visits to customers or referring to past business records with Nissan in accordance with characteristics of regional business practices and risks.

Dealer finance for inventory vehicles is authorized on the basis of an internal rating system that takes into account the financial position of dealers, and if necessary, personal guarantees and/or mortgage collateral are taken in pledge in addition to pledges of inventory vehicle collateral. These scoring models are regularly reviewed and revised to keep them adequate in actual practice.

In some regions and products, Nissan also offers different pricing depending on the applicant's credit score to compensate for the risks.

As a matter of accounting policy, Nissan maintains an allowance for doubtful accounts and credit losses adequately to cover probable losses. Nissan makes best efforts to recover the actual losses from bad debt accounts as quickly as possible by taking necessary actions, including flexible and effective organization change for collection and utilization of third-party collection services.

#### 4. Residual Value Risks

Vehicles on operating leases and some balloon-type credits, where Nissan is the lessor, are guaranteed end-of-term residual value by Nissan. Nissan is therefore exposed to the risk that the sale value of the vehicle could fall below its contractual residual value when the financed vehicle is returned and sold in the used-car market at the end of the contract term.

To mitigate these risks, Nissan objectively sets contractual residual value by using the future end-of-term market value estimation by third parties such as the Automotive Lease Guide in North America, and the estimation from statistical analysis of historical data on the used-car market in Japan. To

support used-car market value Nissan takes several strategic initiatives, including control of sales incentives for new car sales promotion, fleet sales volume control and introduction of a certified pre-owned program. As a matter of accounting policy, Nissan evaluates the recoverability of carrying values of its vehicles for impairment on an ongoing basis. If impaired, Nissan recognizes allowance for potential residual value losses in a timely and adequate manner.

## 2 Risks Related to Business Strategies and Maintenance of Competitiveness

#### 1) Product Strategy

To secure profitability and sustainable growth based on the future product lineup plan, as part of its product strategy developing process Nissan monitors the impact of various risk scenarios—such as global market changes and demand deteriorations—on its future profitability based on the plan. Risk Scenario Examples:

- 1. Drastic decline of total global demand, using past examples as reference
- A demand shift between vehicle segments drastically faster than Nissan's mid-term planning assumptions
- 3. A demand shift from mature markets to emerging markets drastically faster than Nissan's mid-term planning assumptions

  The company periodically monitors the impact of these scenarios to secure future profitability and sustainable growth, as well as updating its future lineup plan periodically based on the results. To improve the robustness of its product lineup against these risks, the company's main approach is to take the following countermeasures when planning its product strategy:
- Expand availability of individual products across markets to mitigate the risk of single market demand fluctuations
- Increase volume and efficiency per product through a consolidation and rationalization of the portfolio to lower the breakeven point and thereby reduce the profit risk of global total industry volume (TIV) declines
- Prepare a more balanced product portfolio meeting needs in a broader range of markets and segments reducing reliance on specific large markets

#### 2) Quality of Products and Services

Nissan is making a companywide effort toward "Enhancing Quality," one of the six areas of focus defined by Nissan Power 88, its mid-term business plan through fiscal 2016. Under this plan, actions are being carried out with numerical targets for the following areas:

- Product quality: Quality of Nissan's products based on the customer's actual experiences as an owner of the vehicle
- Perceived quality and attractiveness: Customers' impressions of a vehicle's quality when they look at and touch it in a dealer's showroom

For example, the target for "product quality" is to attain the top level in the Most Influential Indicators (MIIs) in each region. In order to achieve the target, internal indicators for each model correlating with the MIIs have been established. Progress of all quality improvement activities is monitored on an ongoing basis with those internal indicators.

With respect to new model projects, in order to achieve quality targets, milestone meetings are held for processes from design, production preparation and production, at which key check points are confirmed, such as achievement of quality targets, prevention of recurring problems, and adoption of measures for potential risks related to new technology and mechanisms and design changes. Commercial production can be started after confirmation at the Start of Production (SOP) Judgment Meeting, which confirms all issues are solved and quality targets can be achieved. The final decision that the model can be sold is made at the Delivery Judgment Meeting after confirmation of the quality of commercial production and preparedness for service/maintenance.

Nissan is implementing thorough quality checks before new model launches. Nissan is advancing quality improvement activities after launch as well by constantly gathering quality information from markets and promptly deploying countermeasures if problems arise. In case safety or compliance issues do occur, necessary actions such as recalls are implemented with close cooperation with the marketing side based on a management decision reached by an independent process. Incidents are thoroughly investigated and analyzed, and the lessons are applied to existing or upcoming models to prevent a recurrence.

In addition to these activities, such as quality assurance for new model projects and quality improvement activities on a daily basis, the "Quality Risk Management" framework has been newly developed from fiscal 2009. While quality-related risks have consistently been assessed and dealt with for new models, the new framework represents a higher-level system to ensure successful quality management for both ongoing and future projects. Appraisal involves an objective evaluation of whether risk exists and the level of such risk for the company and the assignment of responsible persons

based on the level for follow-up activities. These processes are implemented by the Quality Risk Management Committee, chaired by an executive tasked with heading this activity, twice a year.

#### 3) Environment, Climate Change

The automotive industry is affected globally by various regulations related to the environment and safety, such as exhaust emissions, CO<sub>2</sub>/fuel efficiency, noise, chemical substances and recycling, and these regulations are getting more stringent year by year. To comply with these regulations and to meet society's expectations, Nissan formulates an environmental strategy based on materiality assessments of management risk factors, analyzing the company's potential issues and opportunities and identifying issues that are crucial for both Nissan and its stakeholders.

In this context, Nissan believes that one effective solution from a long-term perspective will be the widespread use of zero-emission vehicles. Nissan started sales of Nissan LEAF, the world's first affordable, mass-produced EV, in 2010. The Renault-Nissan Alliance has a goal of becoming a leader in zero-emission vehicles and is considering partnering with national and local governments to promote zero-emission mobility and to help build a supporting infrastructure.

Nissan will help to reduce CO<sub>2</sub> emissions by continuously developing technologies to improve fuel efficiency in internal combustion engines and bringing them widely into the market. In particular, the company will promote highly fuel-efficient, low CO<sub>2</sub> emitting vehicles labeled PURE DRIVE, equipped with such technologies as its hybrid system, fuel-efficient direct injection engine and continuously variable transmission (CVT).

Stricter controls on environment-impacting substances are being implemented in countries around the world. In accordance with a globally uniform policy on reducing the use of environment-impacting substances, 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 became unified global standards for Nissan, restricting environment-impacting substances to a stricter degree than the domestic laws of the countries where it operates. Based on this approach, Nissan has developed internal engineering standards restricting the use of

designated substances. The standards identify the chemicals whose use is either prohibited or controlled, and they are applied in selecting the materials, parts and articles for Nissan vehicles from the stage of initial development.

Demand for mineral resources and fossil fuels has steadily increased in response to the economic growth of emerging countries. In addition to promoting reduced use of virgin natural resources through resource-saving and resource-recycling measures, it is becoming important to procure natural resources that have a lower impact on the Earth's ecosystems, not only from the standpoint that these resources are limited but also considering the wide-ranging effects that resource extraction has on ecosystems. Nissan has raised to 25% the target for the use of recycled material in new vehicles by 2016. To achieve this, the company promotes design centered on the vehicle lifecycle, reduces the use of scarce resources, reduces waste and promotes expanded use of recycled materials.

The issue of water resources is ever more serious with the retreat of glaciers and rainfall fluctuation due to climate change, in addition to increasing water use due to the growing world population and economic development. Nissan, which uses water resources in its production process, seriously recognizes the importance of this issue and continuously works to preserve water resources at plants around the world, such as by reducing consumption and recycling water discharged in the production process.

The purchasing divisions of Nissan and Renault carry out supply-chain management in a manner consistent with *The Renault-Nissan Purchasing Way*, a booklet outlining policies for dealing with suppliers, and the *Renault-Nissan CSR Guidelines for Suppliers*. With respect to environmental issues, Nissan has set standards for the efforts of its automobile parts and material suppliers in the form of the Nissan Green Purchasing Guidelines. In fiscal 2012 the company added a number of environment-related criteria in selecting its suppliers to coordinate its efforts to reduce environmental impact; Nissan now asks suppliers to furnish data regarding their CO<sub>2</sub> emission levels and energy use and also consider their management of environment-impacting substances, recycling of resources and water-conservation efforts.

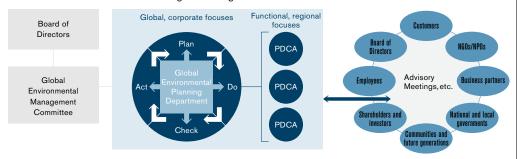
Nissan is working to achieve autonomous guidelines and targets as part of its corporate social responsibility as well as to comply with laws and regulations. In order to promote this environmental management on a global basis, the Global Environment Management Committee (G-EMC), consisting

of corporate officers chosen depending on the issues being discussed, meets twice annually to determine overall policies and the content of reports to be put before the Board of Directors. The Environmental Planning Department within the Corporate Planning and Business Development Division makes decisions on activity targets for each department and region and conducts effective follow-up of the progress based on "plan, do, check, act" (PDCA) management.

#### Nissan's Framework for Global Environment Management



#### Nissan's Global Environment Management Organization



### 4) Compliance and Reputation

Nissan produced the Nissan Global Code of Conduct for all employees of the Nissan Group worldwide. To ensure thorough understanding of the code, training and education programs such as e-learning are improved and the company's compliance with laws and ethical standards is monitored by the Global Compliance Committee. Nissan has also adopted an internal whistle-blowing system (Easy Voice System). This allows any employee to submit opinions, questions, requests or suspected compliance issues directly to Nissan's management.

Nissan also has created sets of internal regulations globally covering the prevention of insider trading, personal information management, information security and prevention of bribery and corruption. Nissan makes efforts to prevent compliance infractions and reputation risk to the company by continuous implementation of various education and training programs.

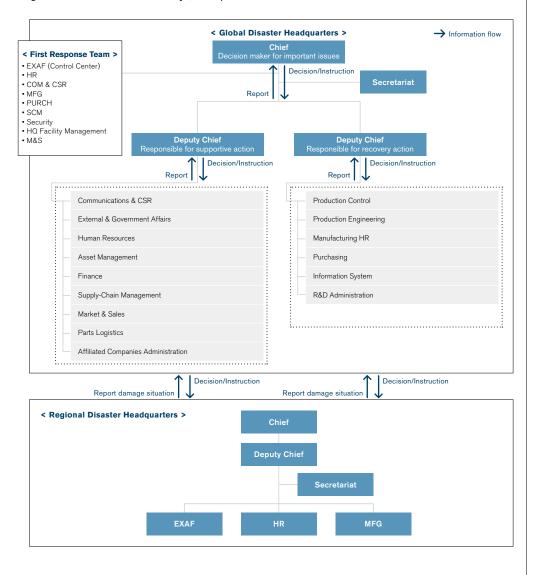
#### 3 Business Continuity

#### 1) Natural Disaster Measures

In case of an earthquake measuring 5-upper or higher on the Japanese seismic intensity scale or other natural disasters causing heavy damage affecting Nissan's business activities, a First Response Team (organized by the main units of the Global Disaster Headquarters) will gather information and decide actions to be taken based on the information. If necessary, the Global Disaster Headquarters and Regional Disaster Headquarters will be set up to gather information about employees' safety and the damage situation of facilities and to work for business continuity.

At the same time, Nissan is working with suppliers to develop a Business Continuity Plan (BCP). This includes assessment of the priority of work by each and every function and development of countermeasures to continue priority work. The BCP will be reviewed annually in the process of the PDCA cycle.

#### Organization for Disaster Recovery (Earthquake)



Policy and Principles in Case of Earthquake:

- Human life as the first priority (utilization of employee safety confirmation system)
- 2. Prevention of secondary disaster (in-house firefighting organization, stockpiling, provision of disaster information)
- Speedy disaster recovery and business continuity (measures for hardware, improvement of contingency plan and development of BCP)
- 4. Contribution to local society (cooperation/mutual aid with neighboring communities, companies, local and central governments)

The Global Disaster Headquarters and Regional Disaster Headquarters conduct simulation training assuming a large earthquake to prepare for a catastrophe. The drills test the effectiveness of this organization and contingency plan and clarify the issues to be improved. The contingency plan is reviewed based on the feedback.

In the aftermath of the March 11, 2011, disaster, Nissan's periodic simulation training helped to ensure the smooth launch of its Global Disaster Headquarters and Regional Disaster Headquarters on the initiative of the First Response Team. This also helped to complete confirmation of employees' safety and checks on the extent of the damage.

Additionally, based on the policy of contribution to local society, the company reacted rapidly to provide rest space to people who could not return home on March 11 and to support damaged areas.

At the stage of business recovery, the Disaster Headquarters and the project teams of each function continuously shared up-to-date information and were addressing the issues for production and business recovery with companywide cooperation. Effective communications supported the quick recovery of Nissan's total supply chain, including parts supply, production, logistics, sales and services.

The response to the March 2011 disaster was reviewed during fiscal 2011 to identify issues that came to light on a function-by-function basis and to consider countermeasures. In March 2012, simulation training was conducted based on a new scenario incorporating the review findings, and the new measures were verified.

In fiscal 2012, Nissan conducted simulation training based on a scenario of a consolidated Tokai, Tonankai and Nankai earthquake, confirming its preparedness for issues that came to light during drills held the preceding fiscal year, such as responses to wide-area disruptions to its

logistics network and fuel shortages. In fiscal 2013, simulation training was based on a scenario of an earthquake directly beneath the Tokyo metropolitan area, carrying a severe risk of system breakdown resulting from damage to energy sources and transport infrastructure. The training tested business continuity measures at Nissan Global Headquarters and other sites in the area. Every year, Nissan also works to enhance responsiveness to earthquake disasters through advance risk estimates carried out by each of the company's divisions.

Additionally, Nissan has formed groups of employees who live near work sites and would be able to get to those sites on foot or by bicycle if a disaster struck on a non-work day. The company held training for these employees to prepare to set up Disaster Headquarters on non-work days.

In the face of its expanding global operations and the need to enhance the natural disaster response of its overseas facilities, in fiscal 2012 Nissan began undertaking horizontal development of best practices at each facility and inviting overseas personnel to observe the simulation training held in Japan. In addition, the same year it started communication training among its overseas facilities based on scenarios of major disasters in various regions of the world. This training is held regularly four times a year.

Utilizing the PDCA cycle, disaster measures will be advanced to address additional issues raised during training and in response to recent changes in the government's anticipated seismic scale announcements. The Global Headquarters building, where the Disaster Headquarters has been set up (built in August 2009), has an earthquake-resistant structure using vibration-controlling brace dampers. Safety is assured even in the case of a maximum-level earthquake at the site. Inspections after the March 2011 earthquake confirmed that the building had no problems whatsoever with its safety and functions.

#### 2) Pandemic

In response to the outbreak of H1N1 type influenza in April 2009, Nissan established a global policy for infection prevention. Each region has organized a response team and has promoted concrete countermeasures based on the policy. Infection status can be monitored globally thanks to

firmly developed reporting lines between the global response team and each regional team.

Nissan has promoted countermeasures based on three basic principles stated in the global policy, which are:

- 1. Priority on employees' health and lives
- 2. Prevention of the spread of infection
- 3. Continuity of business operation

As specific actions, Nissan established the "guidelines for employees' action," which stipulated actions to be taken by employees, sections and companies, and kept employees informed.

Nissan also developed a Business Continuity Plan (BCP) for each business section, with several triggers to invoke the BCP depending on the infection ratio, to maintain business continuity even under a high infection situation.

Nissan will keep prepared for contingencies like avian flu through its PDCA cycle, such as by updating response team members and the BCP, carrying out educational activities for infection prevention and stockpiling sanitary and medical goods.

#### 3) Countermeasures for Production Continuity Risk

Nissan's production division has dealt with various risks related to the three elements of production, as listed in the chart on the following page. For natural disasters, the company has identified the measures needed to restart production within its established goal of two weeks following a large-scale disaster. Over the years Nissan has carried out continuous prevention countermeasures to physical infrastructure (quakeproofing and reinforcement of buildings and other facilities), maintained an operations recovery manual to shorten recovery time and regularly executed BCP simulation drills. The company is also strengthening the resilience of its global production network by establishing a BCP for parts exports to enable continued operations at overseas plants.

In addition, it is absolutely important to manage risks associated with parts procured from Leading Competitive Countries (LCCs) in order to expand markets. Nissan has been conducting risk assessment before making sourcing decisions and providing support for improvement activities after

sourcing. As part of preparations for production, the company carries out assessments of quality and of quantity management processes. In the production phase, quality checks are implemented at key points in the production and logistics process to prevent the production and utilization of imperfect parts. The company also works to reinforce measures identifying

_		ſ	
3 elements of production Risk factor	HR/Workforce	Purchased parts/ Raw materials	Facilities
Natural disasters (earthquakes)	Reinforcement of office buildings (completed) Development of earthquake response manual, implementation of evacuation dills (once/year) Conducting of disaster prevention drills (once/year or more)	Assessment of earthquake preparedness of major suppliers located in high quake-risk areas (FYD8)       Planning to adopt damage reporting system on web base (FY10)     Confirmation of BCPs to be implemented at time of disaster by suppliers in high quake-risk areas (FY11)     BCP for parts exports to continue production at overseas plants (FY12)	Reinforcement of buildings & machinery (continued)     Regular audits of each business facility     Review of facility recovery manual (FY11)
Fire	<ul> <li>Risk assessment based on F-PES (Fire Prevention Evaluation System) (once/year)</li> </ul>	* Same as on the left	<ul> <li>Same as on the left</li> <li>Revision of equipment standard based on the assessment result</li> </ul>
Workplace injury	Risk assessment based on SES (Safety Evaluation System) (once/year)     Assessment for health & safety management system (once/year)	* Same as on the left	• Same as on the left
Pandemic	• Development of flu response manual (FYO9)	Requested suppliers to develop response manual coordinated with Nissan	-
Demand fluctuation	Backup from other Nissan plants (as needed)     Backup from other companies (as needed)     Employment of short-term employees (as needed)	Regular check of demand projection and supply capacity; implementation of measures	Installation of flexible manufacturing system (completed)     Regular check of demand projection and production capacity; implementation of measures     Development of complementary production system for main powertrains
Machinery breakdown	-	_	Share past incident experiences and reflect them in preventive maintenance     Reflect them in equipment standards
Electric power shortage	_	_	Thoroughgoing energy-conservation efforts     Flexibility in plant operations and working hours in response to requests from the government or power companies
Expansion of LCC- manufactured parts	_	Assessment of monozukuri ability before supplier sourcing and support for improvement activities after sourcing; assessment of quality and of quantity management processes at production preparation phase Quality check at mass production phase (action Gatel -3") and preliminary discussion of backup suppliers to reduce supply risk     Bolstering of supplier risk management teams in key areas (FY2013)	_
Decrease of skilled workers/experts	Planning and implementation of training program at each plant to develop skilled workers (Y110) Global development of human resources through the Global Pilot Plant program (Y111) Development of experts to teach technical skills (planning and implementation from FY12)	_	-

the root causes of issues in order to secure global market expansion and growth. To efficiently and effectively promote these activities, Nissan is globally standardizing tools and practices for improving processes and assessments. Through organizations to manage supplier risk in major regions including North America, Europe, China, Japan, Thailand, India and Brazil, Nissan is reinforcing efforts to prevent risks associated with part supply.

#### 4) Supply-Chain Continuity

Control was enhanced as follows to prepare for increased supplier risk.

- Response to suppliers' financial risk
- 1. Risk assessment (annual)
- Work with Alliance partner Renault to conduct financial assessments of suppliers based on the latest data on a global basis
- 2. Prompt decision on risk avoidance
- Prompt decision making by a cross-functional committee based on risk assessment findings
- •Thoroughgoing follow-up measures for risk-avoidance policies for each supplier
- Steady implementation of the above operational process
- Response to suppliers' disaster risk
- 1. Early initial response measures
- Preparation of global supplier address book, matching of addresses with regional natural disaster risk assessment and identification of at-risk suppliers
- •Securing of backup solutions for at-risk suppliers and single sources for parts in Japan and Asian sites, and ongoing study of backup solutions in Europe and North America
- •Completion of visualization of the supply chain (preparation of component information in supply chain by part, enabling early understanding of parts and vehicles that would be affected by disaster) in Japan and Thailand, and ongoing visualization work at other overseas sites
- Particularly in Japan, conducting of disaster simulations based on information about suppliers' plant buildings, land and infrastructure to estimate the effects of disasters
- 2. Improvement of BCPs in Japan
- •Introduction to supply chain of guidelines for drawing up BCPs available to tier-n suppliers, and implementation requirements
- Distribution of BCP self-assessment checklists to suppliers and collection of results

 Based on the above results, implementation of on-site checks and guidance for suppliers assessed to be high-risk

#### 5) Risk Financing and Loss Prevention

1. Global Insurance Management Policy

Nissan manages hazard risk on a global basis with risk-management techniques that combine self-retained risk with external risk transfer via insurance.

In order to minimize the cost of risk, Nissan adheres to the following global insurance management policy. This policy has provided appropriate coverage for damage resulting from the unpredictable disasters that the world has seen in recent years.

- Predictable risks with low impact and high frequency
- ► Retain risks up to an acceptable level on a consolidated basis by the company
- •Unpredictable risks with low frequency and high impact or shock value
- ► Risks whose financial impact may exceed the acceptable level of selfretention are transferred outside the company via insurance
- 2. Global Insurance Programs

In order to minimize the cost of hazard risks and manage risks occurring globally and interdependently in a concentrated manner, global insurance programs have been established for main lines of insurance. The Finance Department in the Global Headquarters decides insurance conditions and structures and negotiates directly with insurance companies for these global programs. The insurance companies are important strategic partners, and they are thus selected in consideration of risk spread and financial solvency.

The following risks are covered through global programs:

Property damage and business interruption by accidents

The program covers risks not only for property damage but also for business interruption and contingent business interruption due to accidents, taking into consideration the global expansion of the supply chain for products and parts. Nissan identifies important suppliers globally and arranges insurance for risks caused by interruption of the supply chain. Coverage limits are determined based on the probable maximum loss amount measured by third-party experts and the risk appetite of insurers.

Nissan achieved further improvement and optimization of insurance conditions by negotiating with insurance companies together with its Alliance partner Renault from fiscal 2011.

•Transportation and storage of vehicles and products for sales

This program covers risks relating to transportation and the supply chain for
parts and products globally. By covering risks spread geographically under
a global program, Nissan can manage loss data on a global basis and
ensure stability of insurance costs.

In fiscal 2011, this program was combined with Renault's program for negotiating with insurance companies to achieve best possible results utilizing synergies of scale.

•Liability (including product liability and liability for unanticipated accidents during operations or caused by owned or managed facilities [general liability])

To manage this risk, Nissan has implemented insurance programs suitable for the legal systems and practices in each region. The programs are led by the Global Headquarters in order to implement a globally uniform strategy with consistent worldwide insurance coverage, and to achieve lower insurance costs.

3. Utilization of Group Insurance Company

For the purpose of more efficient self-retention on a consolidated basis for insurance programs, Nissan utilizes an insurance company of the Nissan Group.

Utilization of a group insurance company enables the following:

- •Company can reduce insurance costs by obtaining the minimum necessary insurance
- •Each group company can obtain necessary coverage
- Company can gather and analyze loss data below self-retained limit
- 4. Loss Prevention Activities

Nissan conducts loss prevention activities to improve loss results and reduce the cost of premiums on an ongoing basis. Since the global insurance programs have been introduced, loss prevention activities have been promoted more actively and globally to maintain low premium rates. Examples of Nissan's loss prevention activities include conducting risk-engineering surveys and obtaining recommendations for safety from third-party experts, creating manuals for actions in the event of typhoons and constructing hail nets to prevent hail damage.

## **ENVIRONMENTAL DATA**

		119			130
			Fuel Economy, CO <sub>2</sub>	130-133	
			Technologies	134-135	
			Other Emissions	135-136	
		120	Lifecycle Assessments (LCAs)	136-137	
Input/Output, Energy	120		Materials, Recycling	137-138	
CO <sub>2</sub>	121-122		ELV Programs	138	
Water	123-124				
Emissions	124-125				
Waste	126				
Logistics	127				139
Supply Chain	128		Third-Party Assurance	139-140	
Environmental Accounting	128		GRI Index	141	
Facility	129				

<sup>\*</sup> Please see p. 37 for Employee Engagement and Education

## Regarding Data for Publication

- Fiscal year: April 1 through March 31.
- Scope: All Nissan manufacturing facilities management offices and Nissan subsidiaries worldwide.

NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

#### **GOVERNANCE**

#### Materiality (Environment)

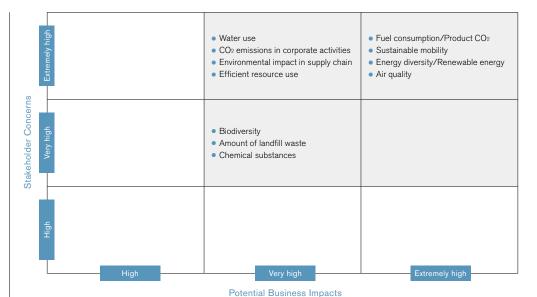
In addition to providing the obvious benefit of growth with sustainable profits, Nissan seeks to contribute to the sustainable development of society. To this end, the company listens carefully to the wide variety of its stakeholders on whom our activities have dependencies and impacts, working with them in pursuit of activities that meet society's needs.

We identify key stakeholders\* with the use of value-chain analysis. Opinions from those diverse stakeholders, and others who may help address issues, are engaged in our strategy processes. Nissan constantly communicates with a number of regional and international stakeholders.

Nissan creates various venues for engagement with the stakeholders. For example, the company invites globally active authorities in the environmental field, including both academics and people on the front lines of the business world, to annual Advisory Meetings. The Board of Directors and these stakeholders exchange opinions on Nissan's business direction and the validity of its strategy in the area of the environment. Nissan then uses this information in its strategies going forward.

The automotive industry is affected globally by various regulations and requirements related to the environment, such as exhaust emissions, greenhouse gases, energy, fuel efficiency, noise, materials/recycling, water, hazardous substances, wastes, and these are becoming more stringent year by year.

Nissan's strategy is built on the idea of listening to the voices of society and identifying the seeds of both opportunity and risk. The framework of this plan is built around the PDCA, or "plan, do, check and act," cycle. Nissan uses concept of materiality analysis to analyze potential opportunities and risks, taking the levels of importance that society and Nissan ascribe to various issues as indices. Priority is focused on issues to which both stakeholders and Nissan ascribe the same levels of importance. The Board of Directors and stakeholders exchange opinions on Nissan's business direction and the validity of its strategy in the area of the environment to engage in the process of creating a future environmental strategy.







Our stakeholders include customers, shareholders, investors, business partners, suppliers, NGOs/NPOs, local communities, governments, future generations, employees and the Board of Directors.

## **CORPORATE INDICATORS**

#### **Material Balance**

Input		(FY)
	Unit	2013
Raw materials	ton	7,508,828
Water	1,000m <sup>3</sup>	30,134
Energy	MWh	9,154,841

Output		(FY)
	Unit	2013
Vehicles		
Global Sales Volume	unit	5,188,972
Waste	ton	172,849
Waste for disposal	ton	17,903
Recycled	ton	154,946
Total wastewater	1,000m³	22,816
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	3,403,736
VOC	ton	11,734
NOx	ton	450
SOx	ton	40

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 corporate carbon footprint, Nissan aims to reduce CO<sub>2</sub> emissions per vehicle sold and, to improve resource efficiency, to increase the recycled material usage ratio. Four key actions, including the above, are performed throughout Nissan's corporate activities.



▶ GRI G4 Indicators

► G4-EN1/G4-EN3/ G4-EN4/G4-EN6/ G4-EN8/G4-EN16/ G4-EN21/G4-EN22/ G4-EN23

#### **Energy Input**

						(FY)
	Unit	2009	2010	2011	2012	2013
Total	MWh	6,525,000	9,353,605	9,460,190	8,984,864	9,154,841
Japan	MWh	4,142,222	5,525,097	5,573,174	4,565,499	4,461,440
North America	MWh	1,175,278	1,782,399	1,733,447	2,157,793	2,173,879
Europe	MWh	719,444	1,066,503	939,469	982,332	861,196
Other	MWh	488,056	979,606	1,214,099	1,279,240	1,658,327
Primary						
Natural gas	MWh		3,691,097	3,467,178	2,847,325	2,732,779
LPG	MWh		340,985	527,696	360,891	339,751
Coal	MWh		245,848	160,720	235,239	149,232
Heating oil	MWh		259,530	253,821	248,445	226,513
Gasoline	MWh		81,502	90,413	211,449	260,157
Diesel	MWh		18,114	20,247	72,151	71,168
Heavy oil	MWh		92,607	87,368	67,967	61,359
External						
Electricity (external source)	MWh		4,365,622	4,524,044	4,741,046	5,114,978
Chilled water	MWh		11,692	9,087	25,947	11,646
Heated water	MWh		0	0	7,492	6,227
Steam	MWh		9,022	67,940	114,281	133,849
Internal						
Electricity (in-house)	MWh		236,624	250,520	52,630	47,182
Renewable energy	MWh		962	1,157	8,341	39,191
Ratio of renewable energy	%	0.000	0.017	0.026	0.82	2.72

Despite the comprehensive energy-saving activities at Nissan facilities, energy usage was 9.15 million MWh in fiscal year 2013, 1.9% increase from fiscal year 2012. Our energy saving activities throughout corporate operations and efficient manufacturing achieved this gentle increase compared to the 2.4% increase in production volume. Within the total energy, manufacturing processes in Japan, North America and Europe used 6,248,525 MWh.\*

Nissan has the objective of increasing the usage of renewable energy to 9% of total energy used in global activities by fiscal year 2016.

#### ▶ page\_139

<sup>\*</sup> Nissan receives third-party assurance from PricewaterhouseCoopers Sustainability Co., Ltd. For details, please see p. 139.



➤ GRI G4 Indicators ➤ G4-EN3/G4-EN4

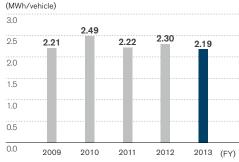
#### **Energy per Vehicle Produced**

**▶** GRI G4 Indicators

G4-EN6

▶ G4-EN3/G4-EN5/

In fiscal year 2013, comprehensive energy saving activities at Nissan facilities mainly in the United States and Europe reduced energy per vehicle produced to 2.19 MWh, an improvement of 4.9% compared to the previous fiscal year.



#### (By Region)

		(FY)
	Unit	2013
Japan	MWh/vehicle	4.46
North America	MWh/vehicle	1.40
Europe	MWh/vehicle	1.31
Other	MWh/vehicle	1.34

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, intensity tends to show higher values.



	(1.1)
Unit	2013
MWh/vehicle	4.46
MWh/vehicle	1.40
MWh/vehicle	1.31
MWh/vehicle	1.34
	MWh/vehicle MWh/vehicle MWh/vehicle

## **CORPORATE INDICATORS - CO<sub>2</sub>**

#### **Carbon Footprint**

						(1.1)
	Unit	2009	2010	2011	2012	2012
Scope1	t-CO <sub>2</sub>	869,592	1,023,208	1,047,691	835,766	780,970
Scope2	t-CO <sub>2</sub>	1,587,603	1,944,684	2,051,965	2,432,889	2,622,767
Scope1+2	t-CO2	2,457,195	2,967,892	3,099,656	3,268,655	3,403,736
Japan	t-CO2		1,444,074	1,451,343	1,526,182	1,446,871
U.S.	t-CO2		610,016	623,654	758,457	814,186
Europe	t-CO2		316,856	311,790	284,079	213,202
Other	t-CO2		596,945	712,868	699,937	929,477
Scope3						
Commuting	t-CO2			449,110	468,346	426,487
Japan, U.S., Europe	t-CO2			213,538	214,619	217,091*
Logistics	t-CO <sub>2</sub>	1,102,000	1,438,000	1,660,000	1,490,050	1,678,903
Manufacturing only	ktCO <sub>2</sub>	1,805	1,899	2,589	2,822	2,872
Japan, U.S., Europe	ktCO2			1,698	1,934	1,846*
Other	ktCO <sub>2</sub>			891	888	1,026

In fiscal year 2013, CO<sub>2</sub> emissions from Nissan facilities increased 4.1% from the previous fiscal year, and the total of Scope 1 and 2 emissions was 3.40 million tons. This is due to an increase in the China production volume; CO<sub>2</sub> emissions in Europe decreased more than 20%. CO<sub>2</sub> reduction in manufacturing processes in Japan, North America and Europe was 88kt-CO<sub>2</sub>.\*

#### **▶** page\_139

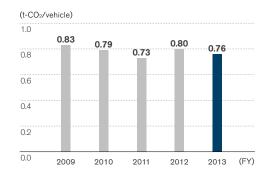
\* Nissan receives third-party assurance from PricewaterhouseCoopers Sustainability Co., Ltd. For details, please see p.139.



→ GRI G4 Indicators ▶ G4-EN15/G4-EN16/ G4-EN17/G4-EN19/

#### Scope 1 and 2 CO<sub>2</sub> per Vehicle Produced

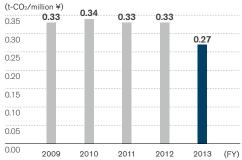
For fiscal year 2013, CO<sub>2</sub> emissions per vehicle produced decreased 4.6% from the previous fiscal year, with combined Scope 1 and 2 emissions at 0.76 tons. Our energy conservation diagnosis and best practice sharing among global Nissan plants contributed to significant improvements.



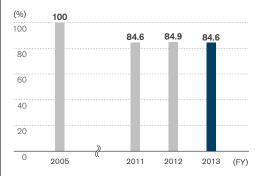
#### (By Region)

		(FY)
	Unit	2013
Japan	t-CO2/vehicle	0.97
North America	t-CO2/vehicle	0.42
Europe	t-CO2/vehicle	0.35
Other	t-CO2/vehicle	0.72

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, intensity tends to show higher values.



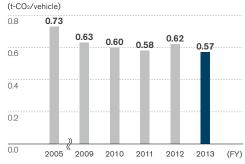
#### **Corporate Carbon Footprint per Vehicle Sold**



Nissan aims to reduce  $CO_2$  emissions from corporate activities by 20% compared to fiscal year 2005, focusing on manufacturing, logistics, offices and sales companies in Japan. Fiscal year 2013, with the improvement in energy consumption in manufacturing and offices, saw overall corporate emissions reduced by 15.4% compared to fiscal year 2005.



### Manufacturing CO<sub>2</sub> per Vehicle Produced



In Nissan Green Program 2016 (NGP2016), the company aims to reduce  $CO_2$  emissions per vehicle produced from manufacturing activities by 27% in fiscal year 2016 compared to fiscal year 2005. In fiscal year 2013, Nissan's manufacturing  $CO_2$  emissions per vehicle produced reached 0.57 ton, a 21.8% reduction compared to fiscal year 2005.



# → GRI G4 Indicators → G4-EN15/G4-EN16/G4-EN18

## Scope 1 and 2 CO<sub>2</sub> per Revenue

In fiscal year 2013, as measured by the per revenue CO<sub>2</sub> emissions of Scope 1 and 2, result was 0.27 tons per ¥1 million, which was improved 17.8% compared to fiscal year 2012.





## **CORPORATE INDICATORS – WATER**

#### **Water Input**

					(FY)
Unit	2009	2010	2011	2012	2013
1,000m <sup>3</sup>	15,629	28,671	30,513	28,697	30,134
1,000m <sup>3</sup>	9,221	17,612	17,268	14,844	16,818
1,000m³	2,970	4,330	4,591	4,770	5,176
1,000m <sup>3</sup>	1,315	2,297	2,276	2,252	2,258
1,000m³	2,123	4,432	5,081	5,720	5,881
	1,000m <sup>3</sup> 1,000m <sup>3</sup> 1,000m <sup>3</sup> 1,000m <sup>3</sup>	1,000m³ 15,629 1,000m³ 9,221 1,000m³ 2,970 1,000m³ 1,315	1,000m³         15,629         28,671           1,000m³         9,221         17,612           1,000m³         2,970         4,330           1,000m³         1,315         2,297	1,000m³         15,629         28,671         30,513           1,000m³         9,221         17,612         17,268           1,000m³         2,970         4,330         4,591           1,000m³         1,315         2,297         2,276	1,000m³         15,629         28,671         30,513         28,697           1,000m³         9,221         17,612         17,268         14,844           1,000m³         2,970         4,330         4,591         4,770           1,000m³         1,315         2,297         2,276         2,252



Nissan's objective is to reduce intake water by 15% in fiscal year 2016 compared with fiscal year 2010 in cubic meters per production unit. In fiscal year 2013, water input in our global sites was 30,134 thousand cubic meters, an increase of 5.0% from fiscal year 2012. Increase in global production volume influenced the usage.

#### **Water Discharge**

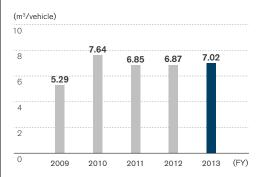
						(FY)
	Unit	2009	2010	2011	2012	2013
Total	1,000m <sup>3</sup>	10,435	19,281	20,398	20,557	22,816
Japan	1,000m <sup>3</sup>	6,293	13,030	13,565	13,710	15,114
North America	1,000m <sup>3</sup>	2,099	2,732	3,214	3,055	3,658
Europe	1,000m <sup>3</sup>	972	1,830	1,930	1,871	1,904
Other	1,000m <sup>3</sup>	1,071	1,689	1,689	1,920	2,139

						(FY)
	Unit	2009	2010	2011	2012	2013
Quality						
Chemical oxygen demand (COD)	kg	11,685	12,345	13,613	18,075	16,036



In fiscal year 2013, water discharges from our global sites totaled 22,816 thousand cubic meters, which was about a 11.0% increase from fiscal year 2012.

## **Water Input per Vehicle Produced**



In fiscal year 2013, water use per vehicle produced decreased to 7.02 cubic meters, a 2.1% increase from fiscal year 2012.

## (By Region)

	(FY)
Unit	2013
m³/vehicle	16.81
m³/vehicle	3.32
m³/vehicle	3.44
m³/vehicle	3.95
	m³/vehicle m³/vehicle m³/vehicle

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, intensity tends to show higher values.

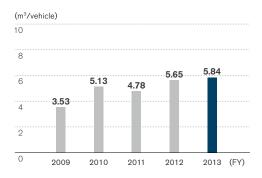




→ GRI G4 Indicators ▶ G4-EN22

#### Water Discharge per Vehicle Produced

In fiscal year 2013, water discharge per vehicle produced was 5.84 cubic meters, which was a 3.3% increase from fiscal year 2012.



#### (By Region)

		(FY)
	Unit	2013
Japan	m³/vehicle	15.11
North America	m³/vehicle	2.35
Europe	m³/vehicle	2.90
Other	m³/vehicle	2.34

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, intensity tends to show higher values.

#### **CORPORATE INDICATORS - EMISSIONS**

#### **Emissions**

						(FY)
	Unit	2009	2010	2011	2012	2013
NOx	ton	755	751	731	525	450
SOx	ton	36	41	46	43	40

In fiscal year 2013, NOx and SOx emissions from our facilities were 450 tons and 40 tons, respectively.



► GRI G4 Indicators
► G4-EN21

### **Volatile Organic Compounds (VOCs)**

						(FT)
	Unit	2009	2010	2011	2012	2013
Total	ton	8,615	10,130	11,424	12,305	11,734
Japan	ton	4,008	4,018	4,399	3,623	3,492
North America	ton	2,264	2,941	3,366	5,194	5,338
Europe	ton	2,343	3,171	3,658	3,488	2,904

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.



▶ GRI G4 Indicators▶ G4-EN21

In fiscal year 2013, VOCs from manufacturing plants were 11,734 tons globally, a 4.6% decrease from fiscal year 2012. This is mainly due to the improvement in emission from the paint shop process.

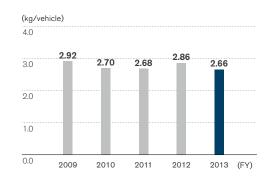


#### **VOC Reduction with Paint Shop Technologies**

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 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 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**

In fiscal year 2013, VOCs per vehicle produced were 2.66 kg, a 6.9% decrease from fiscal year 2012, mainly due to the improvement in emissions from paint shop processes.



#### (By Region)

		(FY)
	Unit	2013
Japan	kg/vehicle	3.49
North America	kg/vehicle	3.43
Europe	kg/vehicle	4.42

## PRTR Emissions (Japan)\*

						(FY)
	Unit	2008	2009	2010	2011	2012
Japan site total	ton	3,960	3,773	3,607	4,441	4,158
Oppama	ton	1,111	1,263	911	981	715
Tochigi	ton	904	897	829	915	942
Kyushu	ton	1,145	910	1,106	1,390	1,394
Yokohama	ton	453	429	418	555	581
lwaki	ton	70	13	58	320	183
NTC	ton	276	260	284	280	343

In fiscal year 2012, PRTR emissions decreased by 6.4% compared to the previous year influenced by the change in production volume in Japan. Results for fiscal year 2013 will be updated later this year.

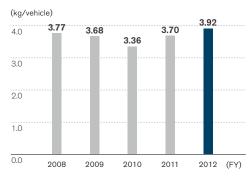
\* The table shows chemical substance emissions calculated based on the Japanese government guideline for PRTR (Pollutant Release and Transfer Register). PRTR emissions show total volume excluding substances adherent to the product.



→ GRI G4 Indicators

▶▶ G4-EN21

## PRTR Emissions per Vehicle Produced (Japan)



In fiscal year 2012, PRTR emissions per vehicle produced in Japan were



3.92 kg, a 5.9% increase from the previous year. The result was greatly influenced by the increase of R&D activities in Japan. Results for fiscal year 2013 will be updated later this year.



## CORPORATE INDICATORS - WASTE

#### Waste

						(FY)
	Unit	2009	2010	2011	2012	2012
Total	ton	128,664	164,381	193,798	170,910	172,849
Japan	ton	62,064	70,136	74,412	67,705	61,999
North America	ton	24,214	31,806	35,780	40,208	51,767
Europe	ton	39,474	59,617	56,996	45,985	46,874
Other	ton	2,912	2,822	26,610	17,012	12,209

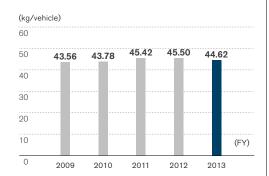
Detail					
Waste for disposal	ton	41,288	40,048	33,479	17,903
Recycled	ton	123,093	153,750	137,431	154,946



► GRI G4 Indicators ► G4-EN23 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 year 2013, waste totaled 173 ktons, an increase of 1.1% from fiscal year 2012, mainly due to an increase in production volume, but waste intensity per vehicle produced is improving. The scope of the waste data is limited to global production facilities.

#### **Waste per Vehicle Produced**

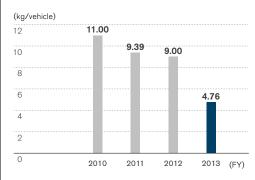
Waste per vehicle produced was 44.62 kg, a decrease of 1.9% from fiscal year 2012. The improvements in waste processing at overseas manufacturing facilities are reducing the total volume of waste generated.



#### (By Region)

		(FY)
	Unit	2013
Japan	kg/vehicle	61.99
North America	kg/vehicle	33.23
Europe	kg/vehicle	71.39
Other	kg/vehicle	13.09

## **Waste for Disposal per Vehicle Produced**



Nissan production sites overseas continue to make strong efforts toward reducing waste. In fiscal year 2013, Nissan reduced the volume of waste for disposal to a total of 4.76 kg per vehicle produced, a 47.1% reduction from fiscal year 2012.





NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

#### **CORPORATE INDICATORS - LOGISTICS**

#### **Logistics Volume**

						(FY)
	Unit	2009	2010	2011	2012	2013
Total	mil ton-km	26,336	35,132	37,946	35,747	37,719
Inbound	mil ton-km	7,556	10,659	11,603	12,156	12,883
Outbound	mil ton-km	18,780	24,473	26,343	23,591	24,836
Sea	%	68.0	71.8	70.8	70.7	64.3
Road	%	21.2	19.6	20.4	20.6	24.9
Rail	%	10.5	8.2	8.1	8.2	10.5
Air	%	0.3	0.4	0.7	0.5	0.4



► GRI G4 Indicators ► G4-EN30 In fiscal year 2013 global shipping rose by 5.5% from the previous year to reach 37,719 million ton-km, primarily due to increased land shipping accompanying the rise in production in geographically extensive China and North America. In the area of air freight for parts, meanwhile, enhanced management techniques allowed Nissan to considerably reduce the amount shipped, resulting in an annual reduction of 12.9% in air freight volume. Sea freight volume also fell 4.0% from fiscal year 2012.

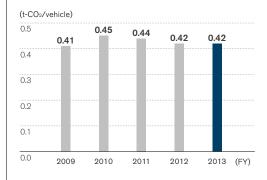
#### CO<sub>2</sub> Emissions in Logistics

						(FY)
	Unit	2009	2010	2011	2012	2013
Total	t-CO <sub>2</sub>	1,083,305	1,412,657	1,642,195	1,490,050	1,678,903
Inbound*	t-CO <sub>2</sub>	501,056	686,412	859,671	821,030	908,804
Outbound*	t-CO <sub>2</sub>	582,249	726,246	782,524	669,020	770,098
Sea	%	24.0	25.2	23.3	23.9	20.2
Road	%	58.4	54.7	50.8	55.3	61.7
Rail	%	5.6	4.5	4.1	4.3	5.2
Air	%	12.0	15.7	21.8	16.4	12.9



In fiscal year 2013,  $CO_2$  emissions from logistics were 1,678,903 tons, an increase of 12.8% from the previous year, mainly due to a 30% increase in China and North America. On the other hand, emissions from air and sea freight were reduced by 11.4% and 4.9%, respectively.

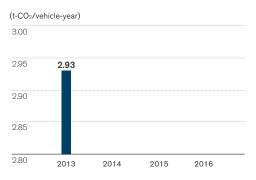
## CO<sub>2</sub> Emissions per Vehicle Transported

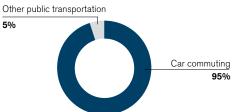


In fiscal year 2013, despite an expansion in global production, the  $CO_2$  emissions per vehicle transported were 0.42 ton, which marked an improvement through efficient logistics compared to fiscal year 2012.



## **Employee Commuting CO<sub>2</sub> Emissions**





CO<sub>2</sub> emissions from commuting (Employees of Nissan offices and manufacturing plants in Japan, FY2012) In fiscal year 2013, we introduced a companywide CO<sub>2</sub> reduction plan for car commuting employees in Japan. Currently, CO<sub>2</sub> emissions from car commuting in Japan are approximately 56 kton, or 2.93 ton-CO<sub>2</sub>/vehicle annually. This plan encourages car commuters to shift from internal combustion engine vehicles to the zero-emission electric vehicle Nissan LEAF to reduce CO<sub>2</sub>. The objective is to reduce emissions by 1% in ton-CO<sub>2</sub>/vehicle annually.

<sup>\* &</sup>quot;Inbound" includes parts procurement from suppliers and transportation of knockdown parts, and "Outbound" includes transportation of complete vehicles and service parts.

#### **CORPORATE INDICATORS - SUPPLY CHAIN**

#### **Supplier Emissions**

			(FY)
	Unit	2011	2012
Carbon footprint	kt-CO <sub>2</sub>	49,254	48,226
Direct	kt-CO2	22,927	22,534
Indirect	kt-CO <sub>2</sub>	26,327	25,692
Energy input	GWh	143,594	139,800
Renewable energy	GWh	683	703
Water input	1,000m <sup>3</sup>	118,907	118,786
Water discharge	1,000m <sup>3</sup>	100,555	98,661
Waste	kton	3,002	2,971



A supply-chain environmental survey was conducted on global tier-1 suppliers. Calculation was made from actual submitted data from suppliers and combined with other estimated data to cover the scope. In fiscal year 2012, the carbon footprint of contract suppliers decreased by 2% from the previous year. This survey is one of Nissan's efforts to reduce  $CO_2$  throughout the entire value chain. From fiscal year 2014, with tier-1 suppliers' own individual targets, overall  $CO_2$  emissions are expected to improve by 1% in t- $CO_2$  per turnover annually. Nissan is regularly engaging with global suppliers to continuously reduce environmental impacts. Results for fiscal year 2013 will be updated later this year.

Component Ratio of Scope 3		(FY)
Category	Component ratio	2013
1. Purchased goods & services	kt-CO <sub>2</sub>	16,101
2. Capital goods	kt-CO <sub>2</sub>	1,055
3. Fuel- and energy-related activities	kt-CO <sub>2</sub>	369
4. Upstream transportation & distribution	kt-CO <sub>2</sub>	909
5. Waste generated in operations	kt-CO <sub>2</sub>	177
6. Business travel	kt-CO <sub>2</sub>	238
7. Employee commuting	kt-CO <sub>2</sub>	426*
8. Upstream leased assets	kt-CO <sub>2</sub>	0
9. Downstream transportation & distribution	kt-CO <sub>2</sub>	770
10. Processing of sold products	kt-CO <sub>2</sub>	9
11. Use of sold products	kt-CO <sub>2</sub>	127,312*
12. End-of-life treatment of sold products	kt-CO <sub>2</sub>	380
13. Downstream leased assets	kt-CO <sub>2</sub>	412
14. Franchises	kt-CO <sub>2</sub>	0
15. Investments	kt-CO <sub>2</sub>	0
Total	kt-CO <sub>2</sub>	148,161

Nissan conducted a study based on the draft Corporate Value Chain (Scope 3) Accounting and Reporting Standard from the GHG Protocol. The results showed that about 90% of Scope 3 emission was from the use of sold products. For the values marked with an asterisk, Nissan receives third-party assurance from PricewaterhouseCoopers Sustainability Co., Ltd. For details, please see p. 139.



#### **CORPORATE INDICATORS - ENVIRONMENTAL ACCOUNTING**

#### **Environmental Emissions**

					(FY)
	Unit	2011		2019	2
		Investment	Cost	Investment	Cost
Total	mil ¥	5,110	158,149	5,520	165,959
Business area	mil ¥	310	1,660	320	1,632
Upstream/downstream	mil ¥	0	664	-	683
Management	mil ¥	0	2,426	0	2,537
R&D	mil ¥	4,800	153,300	5,200	161,000
Social activities	mil ¥	0	99	0	106
Damage repairs	mil ¥	0	0	0	0
					(FY)
	Unit		2011		2012
Total	mil ¥		2,581		2,604
Cost reduction	mil ¥		889		900
Profit	mil ¥		1,692		1,704

All environmental costs are based on the guidelines provided by Japan's Ministry of the Environment, and are calculated for activities in Japan only. Results for fiscal year 2013 will be updated later this year.



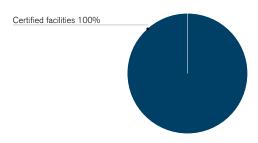
#### **CORPORATE INDICATORS - FACILITY**

#### **Carbon Credit**

						(FY)
	Unit	2009	2010	2011	2012	2013
Allowance	t-CO <sub>2</sub>	7,308	7,308	7,308	7,308	21,015
Credit	t-CO <sub>2</sub>	2,681	4,934	4,066	5,261	-

Nissan Motor Iberica, S.A. in Barcelona, Spain, entered EU-ETS in fiscal year 2009. The verified allowance earned for fiscal year 2013 was 21,015 tons.

#### ISO 14001 Certification





Nissan is progressing with the introduction of environmental management systems to all its operation 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 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 for making 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 high rating CASBEE 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  $CO_2$  emissions were highly evaluated, as were its methods of water recycling and drastic reduction in waste produced.

Since April 2000, Nissan has been deploying unique environmental facility certification system based on ISO 14001 for sales dealers called Nissan Green Shop. The company's environmental policy requires all dealers 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 KPls and is regularly revised to reflect requirements from national legislation, local communities and the Nissan Green Program.

#### Fines from Environmental Laws

No fines or compliance concerns from national environmental law materialized in the reporting year.



►► GRI G4 Indicators



 ▶ GRI G4 Indicators
 ▶ G4-EN24/G4-EN26/ G4-EN29 NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

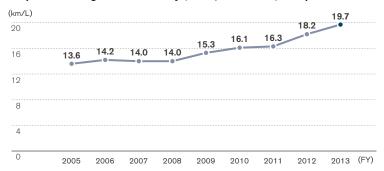
## **PRODUCT INDICATORS**

#### PRODUCT INDICATORS - FUEL ECONOMY, CO2

#### Japan Fuel Economy by Weight Rank

										(FY)
Passenger cars	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013
≦702 kg	km/L 10-15									
703–827 kg	km/L 10-15	19.9	20.6	20.9	20.8	21.7	22.5	25.0	26.2	27.3
828-1,015 kg	km/L 10-15	18.6	18.8	18.6	18.3	19.5	22.5	23.0	23.1	28.5
1,016-1,265 kg	km/L 10-15	17.3	17.6	18.1	18.3	19.5	19.4	19.4	21.8	23.0
1,266–1,515 kg	km/L 10-15	12.8	12.8	13.6	13.3	13.8	14.4	14.4	14.5	15.8
1,516–1,765 kg	km/L 10-15	11.7	11.8	11.6	12.0	12.7	13.1	14.1	15.2	16.1
1,766–2,015 kg	km/L 10-15	8.6	8.7	8.6	9.2	9.2	11.7	11.9	12.5	13.7
2,016-2,265 kg	km/L 10-15	8.3	8.3	8.3	8.4	8.4	9.2	9.4	9.7	10.1
≧2,266 kg	km/L 10-15	5.5	5.5	5.5						

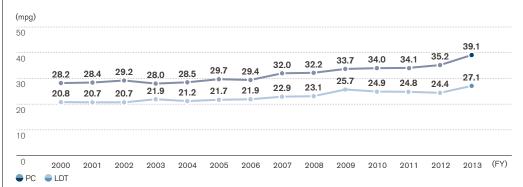
#### Corporate Average Fuel Efficiency (CAFE, JC08 mode) in Japan



In fiscal year 2013, mainly due to strong sales of the DAYZ and Note, the average fuel economy improved to 19.7 km/L in the JC08 mode, which is around a 8% improvement compared to fiscal year 2012.



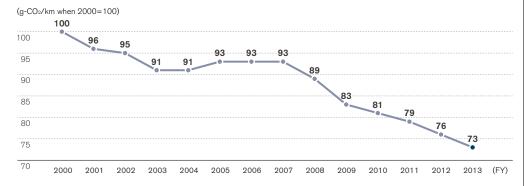
#### Corporate Average Fuel Efficiency in U.S.



In fiscal year 2013, sales of the new Pathfinder Hybrid and the more fuel-efficient Altima and Versa resulted in CAFE of 39.1 mpg for passenger cars, an improvement of 11% from fiscal year 2012. CAFE for light duty trucks was 27.1 mpg.



#### CO<sub>2</sub> Emission Index from Nissan Vehicles in Europe

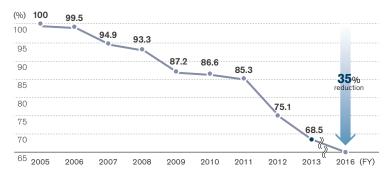


In fiscal year 2013, strong sales of the fuel-efficient new Note improved the  $CO_2$  emission index to 27% compared to fiscal year 2000 for Nissan's European sales passenger car models.



## Global Corporate Average Fuel Efficiency (CAFE)

Nissan's CAFE result in fiscal year 2013 represented a 31.5% improvement from the fiscal year 2005 level. The "kei" minicar DAYZ in Japan, Note in Europe and Altima and Versa in the U.S. market improved the overall CAFE result. The company is steadily progressing toward the Nissan Green Program 2016 (NGP2016) goal of a 35% improvement from fiscal year 2005 (as measured by fuel efficiency standards in the Japanese, North American, European and Chinese markets).





**NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014** 

## **Top Fuel Economy Models**

			(FY)
	Unit		2013
Global	km/L (JC08)	Moco 0.66L 2WD + Stop/Start System	30.0
Best selling model	mpg	Altima/Teana 2.5L 2WD	42.0
Japan(excl. light vehicle)	km/L (JC08)	Note 1.2L 2WD w/Super Charger + Stop/Start System	25.2
Japan(incl. light vehicle)	km/L (JC08)	Moco 0.66L 2WD + Stop/Start System	30.0
Europe	gCO <sub>2</sub> /km	Note 1.5L dCi + Stop/Start System	95.0
U.S.	mpg	Versa 1.6L 2WD	48.5
China	L/100km	Sunny 1.5L 2WD	5.8

Only models with an internal combustion engines are listed, and the 100% electric Nissan LEAF is excluded. From fiscal year 2013, fuel economy in Japan is shown in JC08 mode.



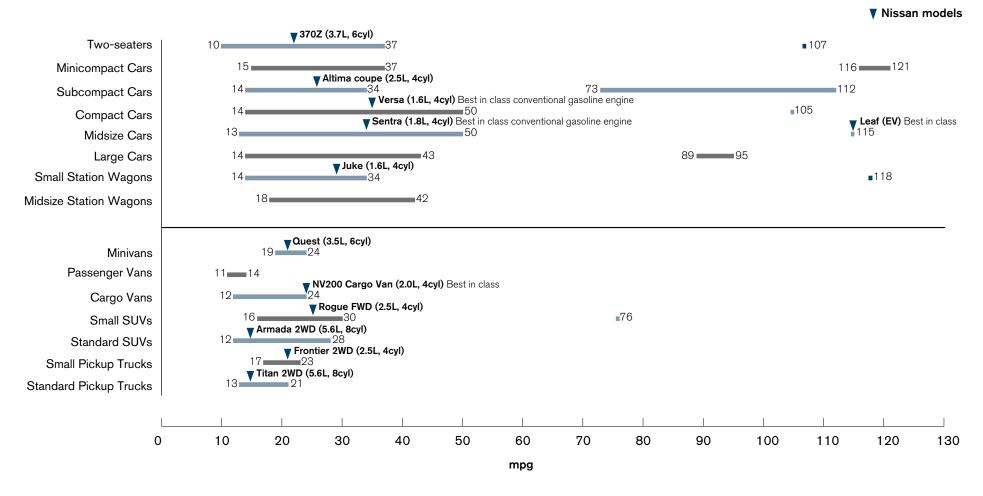
#### **ENERGY SAVINGS THROUGH ULTRACOMPACT MOBILITY**

The Nissan New Mobility Concept enables efficient use of energy and realization of smooth traffic flow. This two-seat, ultracompact, lightweight vehicle, used in the car sharing program "Choimobi Yokohama," consumed only 12,796 kWh last year, significantly less compared to a normal car.

Nissan is cosponsoring the city of Yokohama's Y-Green Partner program for wind power generation in Japan. From fiscal year 2013, by allocating purchased green power certificates for this program, Nissan is supporting the use of renewable energy in car-sharing operations.

#### **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 2013 Fuel Economy Guide, the all-electric Nissan LEAF was listed as a leader in Midsize Cars with combined fuel economy of 115 MPGe. Also, the data shows that the Nissan Versa and Sentra were best in class with conventional gasoline engines, and the NV200 Cargo Van was best in class for cargo vans.



Compiled from the Model Year 2013 Fuel Economy Guide by the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE)

#### **PRODUCT INDICATORS - TECHNOLOGIES**

#### **Sales Ratio by Powertrain Type**

Unit	Gasoline- powered vehicles	Diesel- powered vehicles	Natural-gas drive vehicles	Hybrid drive vehicles	Electric drive vehicles
%	83.0	2.8			
%	97.7	0.2			
%	46.8	50.5			
%	94.3	5.7	0.04	2.01	1.08
%	80.5	19.5			
%	99.7	0.3			
%	82.1	17.8			
	% % % % % %	Unit         powered vehicles           %         83.0           %         97.7           %         46.8           %         94.3           %         80.5           %         99.7	Unit         powered vehicles         powered vehicles           %         83.0         2.8           %         97.7         0.2           %         46.8         50.5           %         94.3         5.7           %         80.5         19.5           %         99.7         0.3	Unit         powered vehicles         powered vehicles         Natural-gas drive vehicles           %         83.0         2.8           %         97.7         0.2           %         46.8         50.5           %         94.3         5.7           %         80.5         19.5           %         99.7         0.3	Unit         powered vehicles         powered vehicles         Natural-gas drive vehicles         Hybrid drive vehicles           %         83.0         2.8           %         97.7         0.2           %         46.8         50.5           %         94.3         5.7         0.04         2.01           %         80.5         19.5           %         99.7         0.3

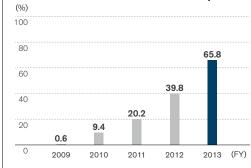
Sales of the all-electric Nissan LEAF—the world's best-selling zeroemission car—surpassed 110,000 units in fiscal year 2013. Also, sales of the Serena S-Hybrid improved the ratio of hybrid vehicles.



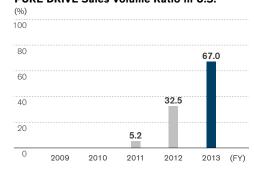
#### **Green Product Innovation**

Nissan believes it is important not only to develop and introduce zero-emission 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.

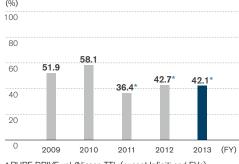
#### **PURE DRIVE Sales Volume Ratio in Japan**



#### PURE DRIVE Sales Volume Ratio in U.S.

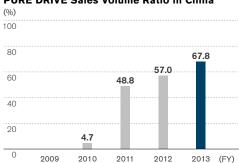


#### **PURE DRIVE Sales Volume Ratio in Europe**



\* PURE DRIVE vol./Nissan TTL (except Infiniti and EVs)

#### **PURE DRIVE Sales Volume Ratio in China**



In fiscal year 2013, mainly due to higher demand for the new Rogue and Versa in the U.S. market and the DAYZ "kei" minicar sales in Japan, the PURE DRIVE introduction improved to nearly twice the level of the previous year. Results from the U.S. market are added from this fiscal year.

PURE DRIVE was first introduced in Japan and Europe in 2008, and by 2011, it was available in almost all markets worldwide.

Country/Region	2009	2010	2011	2012	2013	2013 PURE DRIVE Line-up
Japan						CIMA, FUGA, LATIO, CUBE, NOTE, MARCH, X-TRAIL, JUKE, SERENA, LAFESTA HS, NV350 CARAVAN, MOCO, DAYZ, DAYZ ROOX
U.S.						CUBE, SENTRA, ALTIMA SEDAN, ALTIMA COUPE, JUKE, PATHFINDER, ROGUE, VERSA NOTE
Europe						NV200, NOTE, JUKE, NEW MICRA, NEW QASHQAI, PIXO, Q50 SEDAN, QASHQAI
China						SUNNY, TIIDA, SYLPHY, TEANA, LIVINA
Certain Regions of Asia/Oceania						MARCH, SYLPHY, SERENA, JUKE, ALMERA, PULSAR, TEANA
Certain Regions of Latin America						MARCH, CUBE, JUKE, QASHQAI, SENTRA, SYLPHY, TEANA, VERSA, NOTE, TIIDA SEDAN



→ GRI G4 Indicators

▶ G4-EN27

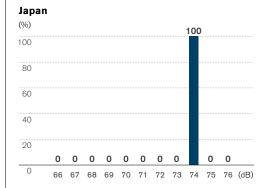
## **PRODUCT INDICATORS - OTHER EMISSIONS**

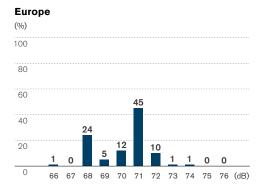
		(FY)
	Unit	2013
Japan SU-LEV	%	98
Europe Euro 5	%	100
U.S. U-LEV/SULEV/ZEV	%	93
China National 4	%	100

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. The National 5 (Euro 5 equivalent) standard is applied in some regions of China; Nissan's vehicles marketed there are 100% compliant.



#### **Share of Noise Emissions**

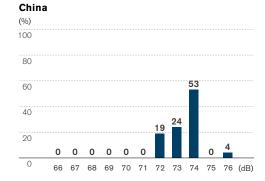




Noise emissions are shown by the noise produced by the acceleration of vehicle in accordance with each national regulation. Only complete, built-up imported models are shown for Europe and China data.



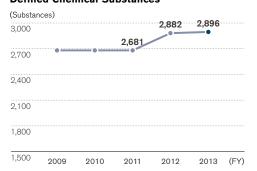
►► GRI G4 Indicators ►► G4-EN27



#### **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 year 2013, the NES was revised to include total of 2,896 substances. Added substances are based on the Global Automotive Declarable Substance List (GADSL), which is the result of the efforts of the global automotive, automotive parts supply and chemical/plastics industries.

#### **Defined Chemical Substances**

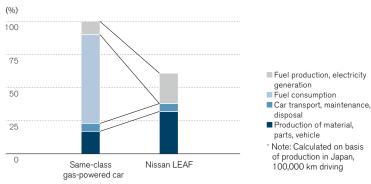


#### PRODUCT INDICATORS - LIFECYCLE ASSESSMENTS (LCAs)

#### 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\*

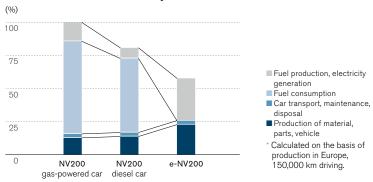


Company calculations show that Nissan LEAF reduces  $CO_2$  emissions by up to 40% over its lifecycle compared to gasoline-powered vehicles of the same class. This assessment was certified by a third-party LCA assessment organization, the Japan Environmental Management Association for Industry.



Nissan has also obtained LCA methodology certification from  $T\ddot{U}V$  Rheinland and calculated LCAs for the e-NV200. Calculations show that electric vehicles reduce  $CO_2$  emissions by up to 40% over their lifecycle compared to equivalent gasoline-powered vehicles and by 30% compared to diesel-powered vehicles.

#### CO<sub>2</sub> Emissions over Vehicle Lifecycle for e-NV200\*



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.

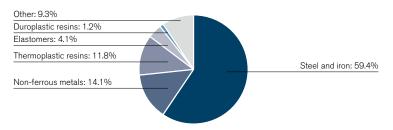
Nissan is making efforts to reduce  $CO_2$  emissions in manufacturing by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials. Nissan also continues to pursue technology development on electric powertrains, power savings on ancillary devices and the use of renewable energy to reduce  $CO_2$  emissions over the entire EV lifecycle. In the end-of-life stage, used batteries can be utilized for energy storage to contribute to comprehensive  $CO_2$  emission reduction in society.

#### 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 year 2016 by 25% in Japan, the United States and Europe.

Pie data shown here represents the status of fiscal year 2013.





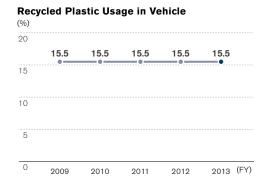
#### Recycling

Nissan has defined a long-term goal of maintaining global usage of these natural resources at 2010 levels through 2050.

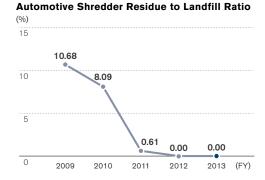
Toward this end, Nissan is presently researching ways to increase the recovery rate further in order to reclaim and reuse valuable materials from end-of-life vehicles (ELVs). As of fiscal year 2013, company calculations showed that Nissan had achieved a recovery rate of 99.5% in Japan.

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.

Ratio of recycled plastic to total plastic was calculated based on the bestselling model in Europe. Recycled plastics use in fiscal year 2013 was 15.5%.



Based on the Automobile Recycling Law in Japan, Nissan calculated the ratio of landfill to residue after removing ferrous and non-ferrous metals from ELVs. Nissan achieved a zero landfill ratio in fiscal year 2013 by enhancing recycling capability through acquiring additional facilities that comply with the law.



#### → GRI G4 Indicators

#### **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 2012, the program in Japan achieved a final recovery ratio for ELVs of 99.3% (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.

<sup>▶</sup> G4-EN2/G4-EN27

NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2014

#### **ASSURANCE AND EXTERNAL RATINGS**

#### **Third-Party Assurance**



## Independent Practitioner's Limited Assurance Report on Sustainability Report 2014

To Mr. Toshiyuki Shiga,

Representative Director, Nissan Motor Co., Ltd.

We have undertaken limited assurance engagement of the information marked (\*)(the "Selected Information") in the Nissan Sustainability Report 2014 (the "Report").

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. (the "Company") is responsible for the preparation of the Selected Information in accordance with the Basis of Calculation of CO2 Emissions Subject to Third Party Assurance (the "Reporting Criteria"), which is available on the Company's website 1). 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.

#### 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 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 Selected Information should be read and understood together with the Reporting Criteria. As outlined in the Reporting Criteria, the quantification of greenhouse gas emission is subject to various inherent uncertainties

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 Reporting Criteria used is applicable as at March 31, 2014.

#### 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 Scope 1 and 2 greenhouse gas emission information.
- 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 undertaken in accordance with ISAE 3000 and 3410 involves assessing the suitability in the circumstances of the Company's use of the Reporting Criteria as the basis for the preparation of the Selected Information, assessing the risks of material misstatement of the Selected Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Selected Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the

 $risk\ assessment\ procedures, including\ an\ understanding\ of\ internal\ control,\ and\ the\ procedures\ performed\ in\ response\ to\ the\ assessed\ risks.$ 

139

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 with underlying records.

The procedures we performed included:

- · inquiry with relevant Company management;
- $\boldsymbol{\cdot}$  evaluating the suitability of the Reporting Criteria as the basis for preparing the Selected Information;
- ${f \cdot}$  assessing the risk of material misstatement in the Selected Information due to fraud or error;
- visiting the Company headquarters and two manufacturing sites, selected on the basis of their invertenent risk and materiality to the Company, to understand the processes and controls over the recording, collation, measurement and reporting of the Selected Information at those locations;
- performing selected limited testing at the Company headquarters and in connection with twenty manufacturing sites over the recording, collation, measurement and reporting of the Selected Information; and
- ${\boldsymbol \cdot}$  evaluating the overall presentation of the Selected Information.

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 is not prepared, in all material respects, in accordance with the Reporting Criteria.

Pricewaterhouse Corpers Switzmatchty Co., Led.

June 5, 2014 Tokyo, Japan

<sup>&</sup>lt;sup>1</sup> The maintenance and integrity of the Company's website is the responsibility of Company management. Our engagement did not consider matters relating to the maintenance and integrity of the Company 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 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' commute: Calculated based on the GHG Protocol Scope 3 Standard. Specifically, the annual CO<sub>2</sub> emissions resulting from each employee's commute is 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 others 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 year 2013 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, North America, 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.

## **GRI** index (Environment)

Section	Index	Reference
G4-EN1	Materials used	120, 137
G4-EN2	Percentage of recycled materials	137, 138
G4-EN3	Energy consumption within the organization	31, 119, 121
G4-EN4	Energy consumption outside of the organization	120, 121
G4-EN5	Energy intensity	31,121
G4-EN6	Reduction of energy consumption	30, 31, 120, 121
G4-EN7	Reductions in energy requirements of products and services	27, 28, 130-132
G4-EN8	Total water withdrawal	120, 123
G4-EN9	Water sources significantly affected by withdrawal of water	-
G4-EN10	Percentage and total volume of water recycled and reused	36
G4-EN11	Location and size of protected areas	32
G4-EN12	Description of significant impacts in protected areas	40, 41
G4-EN13	Habitats protected or restored	-
G4-EN14	IUCN Red List species in areas affected by operations	-
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	16, 31, 121, 122
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	16, 31, 121, 122
G4-EN17	Other relevant indirect greenhouse gas emissions	16, 17, 128
G4-EN18	Greenhouse gas (GHG) emissions intensity	122, 127
G4-EN19	Reduction of greenhouse gas (GHG) emissions	121, 127
G4-EN20	Emissions of ozone-depleting substances (ODS)	-
G4-EN21	NOx, SOx and other significant air emissions	124, 125
G4-EN22	Total water discharge	36, 123, 124
G4-EN23	Total weight of waste	126
G4-EN24	Total number and volume of significant spills	129
G4-EN25	Weight of transported, imported, exported, or treated hazardous waste	-
G4-EN26	Areas affected by the reporting organization's discharges of water and runoff	128
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	20-29, 34, 35, 130-138
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	34-36, 137
G4-EN29	Significant fines and noncompliance with environmental laws and regulations	129
G4-EN30	Environmental impacts of transporting products, goods, materials, and members of the workforce	32, 33, 127
G4-EN31	Environmental protection expenditures and investments	37, 128
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	39
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	39
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	-

#### THIRD-PARTY COMMENT



Toshihiko Goto Chief Executive Sustainability Forum Japan

Joshiliko goto

This report makes it clear that sustainability is the driving force for Nissan's innovation. It also displays Nissan's corporate responsibility toward and solutions for environmental issues, its dedication to electric vehicles (EVs) and autonomous driving, its calls for CO2 reduction by 2050, and much more. All of this is rooted in the long-term perspective held by the company's top management, based on which a variety of efforts are underway. Furthermore, Nissan deserves high marks for carrying out materiality assessment at the top level of the company and describing the processes involved in this Sustainability Report.

Nissan's eight sustainability strategies underpin the value of the company's intangible assets. By enhancing the strategies, Nissan can also enhance its corporate values. All of them are important, and it is appropriate to disclose information on them to a multi-stakeholder audience. The world's investors, however, are guided to a significant extent by the principles of so-called ESG investment, where choices are made according to a company's environmental, social and governance stances. Of these three, I would note that governance is particularly important to ESG investors. In February 2014 Japan's Financial Services Agency issued the "Japanese Stewardship Code," a set of principles to be followed by responsible institutional investors. This signals the onset of an era when ESG and long-term approaches to investment will be the mainstream in Japan, too. Nissan is clearly placing emphasis on different issues and undertaking information disclosure in different ways according to the stakeholders involved, as can be seen from the company's use of its CSR scorecard and other activities. We can expect to see Nissan continue earning high marks in terms of socially responsible investment (SRI) rankings and ratings.

Nissan has made efforts over time to enhance its Alliance with Renault, taking this relationship to an even higher stage. As the companies' supply-chain management and purchasing functions are increasingly converging, we can expect to see enhanced efforts along similar lines throughout the value chain—in particular in terms of the implementation and improvement of due diligence. Supply chains in the automotive industry are broad and deep, making it difficult to carry out due diligence even for tier-1 suppliers—much less those at tier 2 and later stages in the chains. Nevertheless, due diligence is a vitally important aspect of CSR in the emerging and developing markets that will be the main field for business competition in the future, as well as a key topic to address in gauging the risks and opportunities of a globalizing economy. In this connection, the skillful use of information and communications technology throughout the value chain will be a major issue to address from now on.

Nissan is to be evaluated highly for its rapid advancement of CO<sub>2</sub> reduction and other environmental measures, which it undertakes through a range of programs not limited to EVs. The company also displays earnest efforts in the areas of safety and quality, which are closely related to the environment. When it comes to the environment, the E component of ESG investment, Japanese companies are well regarded internationally, and Nissan can be expected to remain a front-runner in the future as well. Nissan also deserves recognition for touching on "sales and service quality" in this report.

Nissan's approach to philanthropy with focus on the three areas of environment, education and humanitarian support is to be commended, but today the global debate has shifted to the post-2015 landscape. In the future, Nissan will need to distill its focus still more, engaging in strategic philanthropy and tying those efforts to business opportunities. One key concept for the company to keep in mind as it does this will be engagement with a full range of stakeholders.

In the area of employee issues, Nissan is a diversity top-runner in Japan, earning society's respect for its efforts in the two areas of gender and cultural diversity. However, in April 2013 the European Commission proposed an amendment to accounting legislation that would require companies to form policy and report on the diversity of their boards of directors. In April 2014, the European Parliament adopted this as a new directive. It takes time for a company to foster human resources and reform its corporate culture, so one thing Nissan needs now is to consider a policy, with the years up to around 2050 in its scope, that addresses diversity not just at the executive level but for all employees.

In the post-industrial-capitalism age of the 21st century, people's wisdom will be the primary player in companies' activities. The creation of people-centered organizations will be the most important task underlying all areas of corporate endeavor. While I feel this is something that Nissan recognizes and is already moving to address, it bears repeating here.

Finally, I would note that while the Sustainability Report is to be commended for its inclusion of a broad range of data, demands are on the rise for more reporting of CSR information that focuses on long-term policies and targets and such information presented with financial details in integrated reporting. Nissan needs to channel its reporting efforts in this direction, too.