# **SUSTAINABILITY REPORT 2018**



NISSAN MOTOR CORPORATION



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# CEO MESSAGE

Nissan aspires to lead the world toward the realization of a zero-emission, zero-fatality society, at a moment of great transformation in the auto industry. We also see a significant opportunity to address unprecedented challenges facing the planet and humanity, including climate change, resource depletion, a high number of auto accidents and a widening socioeconomic divide.

In fiscal year 2017, we started our new midterm plan for our business Nissan M.O.V.E. to 2022. At the same time, we created Nissan Sustainability 2022 which defines the company's initiatives in the environmental, social and governance areas, while reiterating our determination to contribute to the sustainable development of society.



Nissan's ultimate goals are zero emissions, achieved through the elimination of CO<sub>2</sub> emissions from new Nissan vehicles, and zero fatalities, achieved through the elimination of virtually all fatalities that result from traffic accidents involving Nissan cars. In addition to introducing and developing advanced technologies to achieve these goals, Nissan is implementing various initiatives. A core initiative is our Nissan Green Program 2022, a midterm environmental action plan to address critical concerns. Another initiative looks to further develop our diversity, one of the strong characteristics of the company, while others will work to strengthen global compliance systems and governance in the midterm.

Nissan already holds a solid leadership position in the field of vehicle electrification. Since 2010, we have sold more than 320,000 units of the Nissan LEAF, a zero-emission, 100% electric vehicle, globally. The company also introduced the Note and Serena, now offered with e-POWER, an electrified powertrain unique to Nissan. In addition, models such as the Serena and X-Trail are offered with ProPILOT, a driver assistance system that has been well received by many customers. Nissan continues to advance its Nissan Intelligent Mobility strategy to lead these technological evolutions and build sustainable society.

Nonconformities in the final inspection process at our vehicle manufacturing plants in Japan were discovered. I would like to express my deepest regrets to all of our stakeholders in Japan, including our valued customers and business partners, for any inconvenience this has caused. Nissan is determined to ensure compliance and thorough implementation of countermeasures while giving utmost priority to safety. We are fully committed to regaining your trust.

As a socially responsible corporate citizen, Nissan continues to comply with the universal principles of the United Nations Global Compact, which we signed in 2004. In pursuit of our corporate vision, "Enriching people's lives," Nissan continues to deliver sustainable value to all of our valued stakeholders, and we look forward to accelerating these efforts through Nissan Sustainability 2022.

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

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## MESSAGE FROM CHIEF SUSTAINABILITY OFFICER

### Realizing a zero-emission, zero-fatality society

I believe that it is essential for a company to have both strength and kindness for its sustainable business. By combining the strength of our profitability with the kindness of our contributions to global environment and society-the soul of our company-we can earn the trust of our customers and ensure that there is value in what we do. Nissan's corporate vision is "Enriching People's Lives," and we have a long history of listening to the voice of society and striving to resolve sustainability issues by advancing environmental and traffic safety initiatives globally. Through our new sustainability strategy unveiled in 2018, Nissan Sustainability 2022, we will continue to promote these initiatives and meet the expectations of society.



## Toward a Zero-Emission, Zero-Fatality Society: Nissan Sustainability 2022

In 2015, the Paris Climate Agreement was adopted at the 21st Conference of the Parties (COP21) as a global response to climate change. At the same time, our own automotive industry was facing a massive transformation as rapid population growth and advancing urbanization affected society, not least by driving an increase in global demand for mobility. In the same year, the United Nations launched its UN Sustainable Development Goals, or SDGs. Corporations today are expected to take a long-term view in contributing toward the achievement of these goals.

To respond to the expectations of society and stakeholders, we laid out an ambitious goal in Nissan Sustainability 2022: to help realize a society with "zero emissions and zero fatalities through Nissan Intelligent Mobility and by leveraging and enhancing our diversity and a true inclusive organization."

Nissan Sustainability 2022 includes specific initiatives and targets on the way to achieving this goal within the ESG framework of Environmental, Social and Governance.

Environmental: Focusing our Efforts on Climate Change, Resource Dependency, Air Quality and Water Scarcity, with Long-Term Vision

Environmental is the centerpiece of Nissan's "zero emissions" commitment. Our first midterm environmental action plan, the Nissan Green Program (NGP), was introduced in fiscal 2001. In 2006, we set specific long-term goals for 2050, including:

- Reduce CO<sub>2</sub> emissions from new vehicles by 90% compared to fiscal 2000
- Reduce CO<sub>2</sub> emissions from corporate activities by 80% compared to fiscal 2005
- Reduce use of new natural resources to 30% compared to 80% per vehicle in 2010

Under the fourth-generation Nissan Green Program 2022, launched in fiscal 2017, we will focus our efforts on addressing four key environmental issues as we look toward 2050: climate change, resource dependency, air quality and water scarcity.

Social: Leveraging Nissan's Strengths in Traffic Safety Technology and Diversity and Inclusion

In 2017, traffic accidents reportedly accounted for 1.3 million deaths globally. Nissan's ultimate goal is to reduce the number of fatalities involving Nissan vehicles to virtually zero. We are gradually introducing models with ProPILOT, and we plan to offer this technology in 20 models in 20 markets by fiscal 2022.

Diversity and inclusion is another key initiative for Nissan. Since the founding of the Renault– Nissan Alliance in 1999, Nissan has promoted a range of activities to make diversity one of its strengths. We will continue to proactively hire more diverse talent, embracing differences in gender, nationality, race, sexual orientation and generation as we aim to create a truly inclusive company where each individual employee can exercise their abilities to the maximum extent possible.

## Governance: Reinforcing our Foundation as a Trusted Company

Governance is the foundation of our corporate activities and essential to remaining a company that is trusted by society.

Following the final inspection issue, Nissan is committed to strengthening its governance and compliance to ensure that similar problems never arise again. We will continue reinforcing our global compliance systems as well as governance and compliance within each individual function.

## Becoming an Essential Company in the Eyes of Society

For these corporate activities to be sustainable, Nissan must establish bonds of trust with its stakeholders. In order to meet the various social expectations facing the company and contribute to the development of a sustainable society as well as our own growth, thereby becoming an essential company in the eyes of society, Nissan will strive to support its initiatives with a high degree of transparency in information disclosure and communication. As chief sustainability officer, I believe that Nissan Sustainability 2022 is an important set of principles for guiding us toward 2022 and beyond, making us a company needed by society. The entire Nissan Group will work together to promote this sustainability strategy.

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Hitoshi Kawaguchi Senior Vice President, Chief Sustainability Officer Nissan Motor Co., Ltd.

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## MESSAGES FROM RELATED CORPORATE OFFICERS

#### Hiroshi Karube

#### Chief Financial Officer Finance, Control, IR, M&A Support

"Nissan is committed to investing in products, technologies and services that will help deliver sustainable growth, healthy profitability and strong free cash flow. These are fundamentals of our mid-term plan, Nissan M.O.V.E. to 2022, in which the sustainable growth of Nissan will play a major role. We also recognize that contributing to the sustainable development of



society is increasingly important to our shareholders, who expect Nissan to deliver results and to create social value in ways that are transparent and consistent. Nissan will contribute to the sustainable development of society through our own sustainable growth."

## Yasuhiro Yamauchi

#### Chief Competitive Officer

"A key part of Nissan Sustainability 2022 is the Nissan Green Program, which accelerates our environmental efforts to make a positive impact as we address climate change, resource dependency, air quality and water scarcity. As part of these objectives, we tackle climate change and plan to reduce CO<sub>2</sub> emissions 40% from our vehicles sold in 2022 compared to 2000 level, and 30% in corporate activity (where our plant, offices,



logistics and dealers are included) versus 2005. In addition, we will focus on air quality improvement; further enhance water management, and minimize resource dependency in every area from product design, manufacturing process, re-manufacturing, and recycle to reuse. Alongside this effort, we are establishing supply chain relationships even further that will contribute to environmental improvements. In this way, sustainability will become a key performance driver throughout our value chain, stretching from procurement to product development to end-of-life management."

### Philippe Klein

#### Chief Planning Officer

Global Product Planning, Global Program Management, Global Market Intelligence, Vehicle Information Technology

"Our strategy to be a leading global provider of electrified, autonomous-drive and connected vehicles will contribute to our ultimate sustainability goals of realizing zero emissions and zero fatalities. As part of that commitment, we will build on our EV leadership and e-POWER success in Japan with a target of selling



1 million electrified vehicles a year by the end of fiscal 2022. Over that same period, we plan to deploy autonomous-drive technologies led by our ProPILOT system in 20 models in 20 markets. We are also stepping up efforts in ride sharing and Vehicle-to-Grid to drive new relationships between mobility, people and society. These targets, enabling Nissan to lead the technology and business evolution of the automotive industry, embody our quest to realize zero-emission and fuel-efficient vehicles while also utilizing autonomy and connected-car technologies to reduce congestion, improve safety and contribute to a sustainable society."

#### Jose Munoz

Chief Performance Officer Seven management committees, Chairman of Management Committee for China, Business Units (Datsun, Infiniti, Aftersales, LCV)

"Nissan is one of the most diverse and international players in the global auto industry. Our diversity is a core strength of the business. Nissan strives to be a truly inclusive company where employees demonstrate their potential to the fullest, and develop

themselves sustainably. We envision that globally the female manager ratio will increase from 14% today to 16% by 2023. Currently, we have numerous diverse nationalities within the corporate officer group, which makes a positive contribution to the diverse perspectives in company decision making and, we continue to promote talent of diverse backgrounds in Nissan. Over the course of Nissan Sustainability 2022, we will support employee performance, enhance the company's infrastructure to improve working environments and continue to prioritize workplace diversity. Sustainability, in this field, means creating the right conditions for employees, regardless of gender or nationality, so that they can perform at their best with flexible and efficient working arrangements."

## **Christian Vandenhende**

Chief Quality Officer, Executive Vice President Quality and Total Customer Satisfaction

"Nissan aims to be recognized by customers as a brand with highquality products, sales and services. In addition, our focus is on the quality of our operations, the quality of our governance structures and the quality with which we comply with regulations. As part of Nissan Sustainability 2022, we are establishing internal audit systems to ensure that we meet compliance standards in these



areas. Our measures will also identify areas of quality-related compliance risk. Collectively, these efforts underline how quality will permeate our management systems in ways that are both progressive and sustainable."



# SUSTAINABILITY AT NISSAN

- SUSTAINABILITY STRATEGY
- O DIALOGUE WITH STAKEHOLDERS
- INTERNAL EFFORTS TO PROMOTE SUSTAINABILITY
- O LONG-TERM VISION AND GOALS FOR 2022
- MANAGING THE ADVANCEMENT OF SUSTAINABILITY
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# SUSTAINABILITY STRATEGY

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## Sustainability at NISSAN

Guided by the corporate vision of "Enriching People's Lives", Nissan provides unique and innovative automotive products and services that deliver superior values to all stakeholders. As it develops as a company through its full range of global activities, Nissan seeks to not only create economic value but also contribute solutions to society as a leading global automaker. Nissan is committed to all stakeholders—including customers, shareholders, employees and the communities where it does business—and to delivering valuable and sustainable mobility for all. Furthermore, we pursue the realization of a zero-emission, zerofatality society by actively contributing to the sustainable development of society.

Corporate Vision Nissan: Er

Nissan: Enriching People's Lives

### Analyzing Key Societal Issues

At Nissan, top management regularly discuss key societal themes in order to determine which issues Nissan and all its Group companies should address as both a global corporation and an automobile manufacturer, and then ensure that the results are reflected in its sustainability strategy. Nissan also reviews key issues in light of the latest trends, including stakeholder concerns and interests as well as technological developments, and incorporates them into the formulation of its sustainability strategy.

## Sustainability Strategy: "Nissan Sustainability 2022"

Today's society is broadly affected by megatrends like demographic shifts and advancing urbanization, both of which are increasing global demand for mobility. Rapid technological advances are transforming the automobile industry, inaugurating a period of unprecedented change. To allow Nissan to lead in responding to these social trends and providing new value through innovation, the company has formulated a sustainability strategy, called Nissan Sustainability 2022, as part of the midterm plan, Nissan M.O.V.E. to 2022. Under Nissan Sustainability 2022, Nissan clarifies its activities in terms of three concepts: Environmental, Social and Governance, or "E," "S" and "G" for short. Nissan Sustainability 2022 also outlines Nissan's initiatives toward contributing to the sustainability of society as well as its own sustainable growth as a company.

#### Key Themes for Sustainability: Realizing a Zero-Emission, Zero-Fatality Society

The wide availability of automobiles has let countless people enjoy the convenience that comes with automotive mobility as well as the pleasure of driving itself. At the same time, however, increased greenhouse gas emissions and traffic accidents are increasingly pressing issues for the world today. Nissan is using its position as a world-leading automaker to pursue the ultimate goals of achieving zero emissions, through the elimination of CO<sub>2</sub> emissions from new Nissan vehicles, and zero fatalities, through the elimination of virtually all fatalities that result from traffic accidents involving Nissan cars. To this end, the company will work together by growing as an inclusive organization that supports a diverse range of employees in demonstrating their abilities and developing as professionals over the medium and long term.



\* Click on each of the ESG concepts above for detailed information on the 2018 Sustainability Report

#### Environmental: Under its environmental philosophy of "a Symbiosis of People, Vehicles and Nature," Nissan contributes to resolving environmental challenges based on social needs together with long-term vision.

#### Nissan Green Program 2022

Nissan's midterm environmental action plan <u>Nissan Green Program 2022</u> calls for actions to be taken on four challenges: Climate Change, Resource Dependency, Air Quality and Water Scarcity.

#### **Social: Nissan respects the rights of all stakeholders**

#### **Traffic safety**

- Aiming for virtually zero fatalities in traffic accidents involving Nissan vehicles as an ultimate goal, Nissan will promote the development and implementation of autonomous driving and other effective safety technologies.

#### **Diversity and inclusion**

- Nissan will build an inclusive, innovation-creating organization designed for sustainable development, where individual employees with diverse backgrounds in terms of gender, nationality, ethnicity, race and age can demonstrate their potential to the fullest.

#### Quality

- With the voice of the customer as our top priority, Nissan will provide top-level quality in its products and services around the world.

#### Supply chain

- Nissan will establish a sustainable supply chain with due regard to human rights and the environment.

#### **Employees**

- To ensure that each individual employee can continuously learn and develop their potential to the fullest, Nissan will provide opportunities for learning that employees can access wherever and whenever they wish. Furthermore, Nissan will also aim to create lively workplaces where the health and safety of employees is the top priority.

#### **Community engagement**

 Through activities that contribute to local communities on the themes of "zero emission," "zero fatality" and "zero inequality," Nissan will aim to realize "a Cleaner, Safer and More Inclusive Society."

## Governance: Nissan complies with laws, regulations and rules and engages in business activities that are just, fair and transparent

#### **Corporate governance/internal control**

- Nissan will strengthen its corporate governance and enhance its compliance systems globally, promoting business activities that comply with laws and regulations and are highly transparent.

## Selecting Key Report Themes

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

Reporting themes are selected on the basis of potential impact on business activities and level of interest from stakeholders. Potential impact on business activities is evaluated by referring to previously recognized issues, CSR guidelines, trends and current global events inside and outside the automobile industry. Stakeholder interest is evaluated based on interviews conducted as necessary with both internal and external stakeholders and analyses provided by external consultants.

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### PARTICIPATION IN THE U.N. GLOBAL COMPACT

Nissan actively supports a number of international guidelines and agreements, respecting international policies and standards as it conducts its business operations. Since January 2004, Nissan has participated in the United Nations Global Compact, a corporate responsibility initiative built around 10 universal principles regarding human rights, labor, the environment and anti-corruption. The U.N. Global Compact was originally proposed by U.N. Secretary-General Kofi Annan in an address to the World Economic Forum (Davos forum) in 1999. Businesses may pledge to support its principles of their own free will. Nissan's sustainability management aims to enhance the full range of the company's activities based on these 10 principles.

• Click <u>here</u> for more information on the U.N. Global Compact.



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# DIALOGUE WITH STAKEHOLDERS

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

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



#### Nissan's Stakeholders and Engagement Opportunities

Stakeholders	Stakeholder Engagement	Stakeholder Interests, Main Topics
Customers	Customer service interaction, contact through dealers, websites, showrooms, motor shows, events, safety driving forum, customer surveys, media (TV, magazines, social media), owners' meetings, vehicle maintenance, mailing service	Reflecting customer feedback in products and services (various touchpoints)
Employees	Direct contact (including whistleblowing system), intranet, internal events, interviews, surveys	The CEO informs employees of the previous fiscal year's business results and explains the direction for the new fiscal year. (Presidential Address)
Suppliers and Dealers	Suppliers conference, dealer conventions, business meetings, direct contact, briefings, corporate guidelines, websites, dedicated portal site	Spreading understanding of Nissan's midterm plan, purchasing policy for each fiscal year, and so on (Suppliers' meetings)
Shareholders and Investors	Direct contact with IR team, shareholders meetings, financial results briefings, IR events, IR meetings, website, Annual Report, mailing service	Explanations about ESG initiatives, regional strategies, and so on (Business briefings)
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	Joint programs with industry, government and universities (Technological cooperation for electric buses, "Yoka ECO Bus," in Kumamoto city, and so on)
NGOs and NPOs	Direct contact, philanthropic activities, partnerships, donations, disaster relief activities, events, assistance via foundations	Consideration of areas to conduct activities and activity content (Operation of philanthropic programs)
Local Communities	Direct contact to local business facilities, local events, plant visits, conferences, sponsoring, traffic safety awareness campaigns, assistance via foundations	Promotion of activities to raise awareness of traffic safety in local communities (Omoiyari Light Promotion, etc.)
Future Generations	Direct contact, philanthropic programs, plant visits, endowed courses, events, assistance via foundations, websites	Promoting understanding of global environmental issues through experiments and ride experiences. (Nissan Waku-Waku Eco School)
Media	Contact with PR team, press conferences, PR events, press releases, interviews, mailing service, websites	Briefing on Nissan M.O.V.E. to 2022 (Press conference)

## Nissan's Approach to Shareholder and Investor 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 has an active IR program that provides information both promptly and transparently. Nissan uses various opportunities to disclose information regarding the company's long term vision for management strategies, the innovations it is adopting to boost its competitiveness, and the latest market trends.

#### 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 proactively discloses information on its operations through business briefings and participation in conferences hosted by securities companies. It also cooperates with securities companies to hold briefings for individual investors. The latest information is also available on the IR website.

Each year Nissan holds events to present its business activities to investors and analysts, focusing on themes most relevant to them and making available the company's divisional and regional managers to actively provide the required information. In fiscal 2017, presentations covered such topics as power train strategies and trends in the ASEAN region, the same as last year. An opportunity was arranged in fiscal 2017 for a discussion with institutional investors about ESG initiatives, a topic which has attracted much interest recently, in which Nissan explained its overall sustainability efforts, including environmental activities.

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

#### 119th Shareholders Meeting

The 119th Ordinary General Meeting of Shareholders was held at the Pacifico Yokohama on June 26, 2018, and was attended by 4,188 shareholders.

The General Meeting of Shareholders is an opportunity for the executive team and the company's owners to communicate directly. Nissan aims to develop trust through these meetings and various other forms of interaction with shareholders, paying full attention to their 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.

#### Positive External Assessment for IR Activities

At the 22nd Awards for Excellence in Corporate Disclosure presented by the Securities Analysts Association of Japan, Nissan ranked third in the automobiles, auto parts and tires category. Winners of these awards, established with the goal of improving corporate disclosure, are selected through assessment by analysts in five categories: company management's IR engagement, briefings, fair disclosure, corporate governance and voluntary disclosure. The analysts recognized Nissan for its fair disclosure, such as its timely release of balanced information through its website and other outlets, for its active implementation of informational meetings and site tours and for its corporate governance.

Oclick here for more IR information.

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## INTERNAL EFFORTS TO PROMOTE SUSTAINABILITY

Company-wide management of specific activities under Nissan's sustainability strategy, from setting goals to monitoring progress, will be the responsibility of the Global Sustainability Steering Committee chaired by the company's Chief Sustainability Officer (CSO). The committee meets biannually and includes management representatives from functions involved with the environmental, traffic safety, diversity and inclusion, and other areas. While each function is responsible for advancing its own activities, progress is reported to the committee. Nissan swiftly implements the PDCA cycle in pursuit of improved sustainability performance.

The Global Sustainability Steering Committee will also report to the Executive Committee, Nissan's highest decision-making body, which will make decisions on policies and future initiatives.



**Nissan's Sustainability Decision-Making Process** 

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# LONG-TERM VISION AND GOALS FOR 2022

In promoting its sustainability strategies, Nissan Sustainability 2022, Nissan has established goals for 2022 in accordance with initiatives for each of the ESG concepts. By 2022, Nissan aims to achieve these goals based on its Long-Term Vision which takes into consideration opportunities and issues in Nissan's business operations as well as societal expectations and issues. In achieving goals for each of the initiatives, Nissan is aiming for its own sustainable growth and for the sustainable development of society.



Activities of ESG Concepts		Long-Term Vision	The Main Goals for 2022
	0	d by our operations and products to a level that can apital to future generations.	
	Climate change	<ul> <li>Carbon-neutral</li> <li>Achieve 90% reduction of CO<sub>2</sub> emissions from new vehicles by 2050 (vs. 2000)</li> <li>Achieve 80% reduction of CO<sub>2</sub> emissions from corporate activities by 2050 (vs. 2005)</li> </ul>	Product CO <sub>2</sub> emissions reduction : -40 % of CO <sub>2</sub> reduction from new cars (vs.FY00; JPN, US, EUR, PRC) Overall corp. CO <sub>2</sub> emissions reduction : -30% reduction of CO <sub>2</sub> global per unit sales (vs FY05)
Environmental	Resource dependency	Zero new material resource use • Reduce dependency on new mate- rials 70% by 2050	New resource usage minimization:Reduce new natural resource usage 30% per vehicle
	Air quality Zero impact		<ul> <li>Cabin air quality improvement : Research on technical solutions</li> <li>Reduce VOC from MFG : Promote reduction of VOC per paint areas</li> </ul>
	Water scarcity	Zero stress	Water reduction (manufacturing) : -21% reduction of water intake per unit in global production (vs FY10)

### Long-Term Vision and Main Goals for 2022

	ies of ESG oncepts		Long-Term Vision	The Main Goals for 2022
	Traffic safety	To reduce th vehicles to v	ne number of fatalities involving Nissan irtually zero	75% reduction from 1995 levels in fatalities involv- ing Nissan vehicles in 2020
	Diversity and inclusion	innovation the where indivi grounds in the religion, disa	ustainable development by creating nrough building an inclusive organization dual employees with diverse back- erms of race, nationality, gender, ability, age, place of origin, gender iden- ual orientation can demonstrate their the fullest.	Ratio of women in managerial positions - Global:16% by2023 - Japan:13% by2023
		Product quality	Strive for the top level in quality from the	e customer's perspective.
	Quality	Sales and service quality	Achieve top-level quality in all focus mar quality for sales and service.	kets. over the longer term, maintain top-level
Social	Supply chain		to establish a sustainable supply chain gard to the environment and human	All of our suppliers follows Corporate Social Responsibility Guidelines for Suppliers. Aim to reduce our collective environmental foot- print through environmental data survey and collab- oration with suppliers.
	Employees	Learning and development	Our vision is to grow agile talent for the future – from success to signifi- cance	Create a continuous learning culture at Nissan by : • Launching an integrated development framework; • Driving manager and employee accountability for learning; and • Provide digital solutions to realize "anytime, any- where learning" utilizing great digital solutions.
		Occupational safety and health	Realizing zero-accidents, zero-illness- es and a safe workplace	To reduce lost-time injuries frequency rate (global) by 50% at a level by FY2022, compared to that of FY2016 (Total lost-time injury cases ÷ total working hours × 1 million)
	Community engagement	To realize, a society	cleaner, safer and more inclusive	All of our regions are executing philanthropy pro- grams for the strategic areas as "zero emission", "zero fatality" and "zero inequality".
Gover- nance	Compliance		ioning framework for the prevention of lations and for compliance at all Nissan	<ul> <li>Enhance monitoring activity in each compliance risk area, and establish framework to oversee progress of each monitoring activity</li> <li>Enhance third party compliance system to ensure entire Nissan business process is compliant</li> </ul>
	Risk management	and enhanc tion of inforr	t of benchmark levels for maintenance ement of information security, preven- nation leaks, and damage limitation and e of transparency in the event of leaks.	Achievement of benchmark levels for maintenance and enhancement of information security in each area including new environments and new areas.

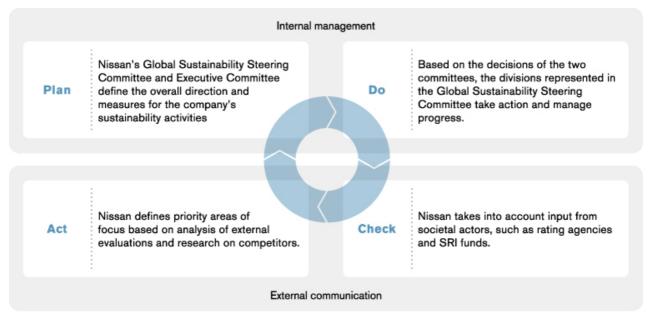
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## MANAGING THE ADVANCEMENT OF SUSTAINABILITY

### PDCA Cycle to Promote Sustainability

At Nissan, sustainability activities are promoted through the PDCA (plan, do, check, act) cycle. After the Global Sustainability Steering Committee and Executive Committee decide the overall direction on sustainability initiatives, progress on activities is managed, societal views are incorporated into corporate activities, and external trends are analyzed.

#### **PDCA Cycle**



## 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 sustainability management.

Working with Dealers for Sustainability Management

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

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

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

# 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 sustainability activities and proactively discloses information about its business operations. The company's initiatives for sustainability have received high praise from external assessors.

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

## Dow Jones Sustainability Indices (DJSI)

The Dow Jones Sustainability Indices (DJSI) are a family of SRI indices developed by S&P Dow Jones Indices LLC (U.S.) and RobecoSAM AG (Switzerland). In 2017, Nissan was selected again as a member of the DJSI Asia Pacific Index, of which the company has been a member since its establishment in 2009.



## **FTSE4Good Index Series**

Nissan continues to be a constituent of the FTSE4Good Index, an ESG Equity Index Series of FTSE, after its 2017 review.

O Click here for more information on the FTSE4Good Index Series.



FTSE Blossom Japan

## **FTSE Blossom Japan Index**

Created by the global index provider FTSE Russell, the FTSE Blossom Japan Index is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The Blossom Japan Index are used by a wide variety of market participants to create and assess responsible investment funds and other products.

Nissan continues to be a constituent of the FTSE Blossom Japan Index for the second consecutive year.

Olick here for more information on the FTSE Blossom Japan Index



## **CDP Climate Change Program**

In the CDP Climate Change Report, announced in October 2017, Nissan received a Leadership-level ranking for the fourth straight year.

## **CDP2017 Global Water Report**

Nissan was chosen for the 2017 CDP's Global Water Report's "A list," out of more than 2000 companies that provided data to CDP.



## Clarivate Analytics 2017 Top 100 Global Innovators

For the fifth consecutive year, Nissan was selected as one of the Top 100 Global Innovators by Clarivate Analytics. In deciding this award, Clarivate Analytics uses its proprietary database of patent information to analyze not just recipients' advanced and innovative technologies but also their development of solutions with broad application in the real world. The award recognizes the most innovative companies and organizations in all industries around the world. KS-SRI モーニングスター社会的責任投資株価指数 Morningstar Socially Responsible Investment Index

## **Morningstar SRI**

Nissan has been selected for inclusion in the 2018 MS-SRI (Morningstar Socially Responsible Investment Index), a Japanese SRI index managed by financial information services firm Morningstar Japan K.K.



## **Development Bank of Japan Environmental Ratings**

As well as being recognized by the Development Bank of Japan as a "company with excellent advanced environmental initiatives," the bank's highest environmental rating, Nissan's outstanding evaluation results also entitled it to a Special Prize reserved for model corporations.

#### GRI102-12

## CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS

With the world population expected to reach nine billion by 2050, societies are facing a range of issues, such as climate change, poverty and ongoing urbanization. To deal with such issues, the United Nations has adopted a set of Sustainable Development Goals (SDGs), and companies have an increasingly important role to play in achieving these goals. The automobile industry, too, faces an increasingly important responsibility to provide value to society by delivering safe, secure and sustainable mobility for all. Nissan supports the Sustainable Development Goals.



SDG	Goal Targets	Nissan's Contribution	Nissan's Approach	Indicators	FY2015 Results	FY2016 Results	FY2017 Results	Targets
1	1.2	Improving livelihoods	Through community en- gagement activities, aim to realize a cleaner, safer and more inclusive society where everyone is given equal opportu- nities.	_	_	_		_
2	2.1	Emergency food assistance	Ascertain the needs of areas affected by natu- ral disasters, providing supplies and other sup- port.	_	_	_	_	_
3	3.6	Reducing traffic accidents	Reduce the traffic fatali- ties by taking measures in the areas of vehicles, individuals and society.	Number of fatali- ties from accidents involv- ing Nissan vehicles com- pared to 1995 level (Japan)	70% reduction	72% reduction	(Most recent data is from 2016)	75% reduction compared to 1995 levels by 2022
	3.9	Reducing health impacts	Improve air pollution in urban areas through the spread of zero-emission vehicles, etc.	_	_	_	_	_
4	4.2, 4.3	Supporting youth education	Provide educational programs that make use of the knowledge and technologies built up during business activi- ties.	_	_	_	_	_
	4.7	Promoting understan- ding of su- stainability	Promote understanding of sustainability among employees, sales com- panies, business part- ners and others.	_	_			-
5	5.1	Advancing gender equality	Promote support for ad- vancement of women in the workplace globally through diversity and in- clusion and community engagement activities.	_	_	_	_	_
0	5.5	Advancing gender equality	Establish an inclusive organization where indi- vidual employees with diverse backgrounds can demonstrate their potential to the fullest.	Ratio of manage- rial posts filled by women	13%	14%	14%	Global target of 16% by 2023

SDG	Goal Targets	Nissan's Contribution	Nissan's Approach	Indicators	FY2015 Results	FY2016 Results	FY2017 Results	Targets
6	6.4	Improving efficiency in water usage	Manage and reduce water usage at all of production plants pro- ducing Nissan vehicles and parts located all over the world.	Rate of reduction in water usage per vehicle pro- duced (vs. 2010)	8.6%	15.7%	16.2%	21% reduction in water usage at manufactu- ring plants across the world by 2022
7	7.2	Increasing renewable energy usage	Promote adoption of re- newable energy accord- ing to the characteris- tics of each region by taking three approach- es: generating its own power in company facili- ties; sourcing energy with a higher proportion of renewables; and leasing land, facilities and other Nissan assets to power companies.	Renewable energy usage rate in manufac- turing plants		9.2%	10%	
	7.3	Improving energy efficiency	Promote initiatives to reduce energy con- sumption in the manu- facturing process.	Energy per vehi- cle produced	1.86 MWh	1.80 MWh	1.68 MWh	_
	8.1	Economic development	Encourage the growth of the world economy through automobile manufacture and sales.	Net sales	1.22 trillion yen	1.17 trillion yen	1.20 trillion yen	1.65 trillion yen (2022)
	8.2	Offering learning opportunities	Provide every member of a diverse workforce with opportunities for self development "any- time and anywhere."	Hours per trainee	26.9	28.8	30.6	_
8	8.5	Establishing decent work	Promote workstyle re- forms that provide a crucial foundation for supporting diversity and inclusion, allowing em- ployees with a range of values and life needs to perform at their best.	Employee turn- over rate	4.6%	4.3%	5.4%	_
	8.7	Respect for human rights	Promote initiatives based on the Nissan Human Rights Policy Statement in recognition of the UN Guiding Prin- ciples on Business and Human Rights as the standard reference.	_	_	_	_	_

SDG	Goal Targets	Nissan's Contribution	Nissan's Approach	Indicators	FY2015 Results	FY2016 Results	FY2017 Results	Targets
	8.8	Reducing industrial accidents	Set up occupational health and safety man- agement systems and put in place structures for the steady imple- mentation of employee safety and health activi- ties.	Lost-time injuries frequency rate	0.75	0.68	0.47	_
			Work to protect the en- vironment through busi- ness activities and the provision of revolution- ary products, technolo- gies and services.	Environmental conservation costs (Japan)	Investment: 3.49 billion yen, Cost: 172 billion yen	Investment: 3.87 billion yen, Cost: 177 billion yen	(Most rec- ent data is from 2016)	_
9	9 9.4	Improving environmental preservation technology	Solicit the necessary fa- cility proposals from each global site, prefer- entially allocating invest- ment based on the ben- efit in CO2 reduction compared to project costs.					_
10	10.2	Advancing diversity	Establish an inclusive organization where indi- vidual employees with diverse backgrounds can demonstrate their potential to the fullest.	_	_	_		_
11	11.1	Creating sustainable cities	Through community en- gagement activities, and together with partners such as NGOs, aim to realize a cleaner, safer and more inclusive soci- ety where everyone is given equal opportuni- ties.	_	_	_	_	_
	11.2	Establishing resilient transport infrastructure	Contribute to the devel- opment of a sustainable mobility society through use of electric vehicles, Autonomous Drive and other technologies.	_	_	_	_	_

SDG	Goal Targets	Nissan's Contribution	Nissan's Approach	Indicators	FY2015 Results	FY2016 Results	FY2017 Results	Targets	
				VOC emissions (main regions)	10,820 tons	11,933 tons	11,152 tons	_	
		Reducing	Reduce air pollutants	NOx emissions	450 tons	430 tons	651 tons	_	
	12.4	air pollutants	from the manufacturing process.	SOx emissions	37 tons	31 tons	36 tons		
			process	Emissions of sub- stances designated by PRTR (Japan)	4,129 tons	3,539 tons	(Most re- cent data is from 2016)	_	
12		Reducing	Incorporate the three Rs at the new car design stage and reduce waste materials.	End-of-life vehicle recovery rate (Japan)	99.6%	99.7%	99.7%	_	
	12.5	waste	Reduce waste materials from the manufacturing process with methods such as recycling.	Waste reduction rate (BAU ratio)	7.3%	3%	10.5%	Global: 1% / year	
	12.6 informa	Providing information about sus- tainability	Provide stakeholders with information through a sus- tainability report and other media.	_	_	—	_	_	
	13.1	3.1 Reducing greenhouse gas emissions	13.1 greenhouse	Reduce CO <sup>2</sup> emissions from new cars.	CO <sub>2</sub> emission re- duction from new cars (vs. FY2000: Japan, U.S., EU, China)	32.3% reduction	32.6%	33.4%	Reduce CO <sup>2</sup> emissions by 40% relative to 2000 levels by FY2022
13				Reduce CO <sup>2</sup> emissions from corporate activities.	CO <sup>2</sup> emission re- duction per vehicle sold (vs. FY2005)	22.4% reduction	22.3% reduction	29.2% reduction	Reduce CO <sup>2</sup> emissions by 30% relative to 2005 levels by FY2022
			Use carbon credits and reduce CO <sup>2</sup> emissions.	Credit amount (Spain)	45,824t- CO2	43,424t- CO <sub>2</sub>	45,477t- CO2	-	
14	14.1	Preventing marine pollution	Manage the water quality of waste water at all of our manufacturing sites according to standards that are even stricter than local regulations.	_	_	_	_	_	
15	15.5	Preserving biodiversity	Based on the UN Millen- nium Ecosystem Assess- ment framework, identify issues and implement ini- tiatives that include coop- eration with outside orga- nizations.	_	-	_	_	_	

SDG	Goal Targets	Nissan's Contribution	Nissan's Approach	Indicators	FY2015 Results	FY2016 Results	FY2017 Results	Targets
16	16.3	Respect for the rule of law	Strengthen the legal order through strict adherence to law.	Violations of laws or regulations which resulted in government penalties (Environment)	None	None	None	_
	16.4	Preventing illegal product trading	Thoroughly comply with export control laws and regulations that relate to national security issues.	_	_	_	_	_
	16.5	Reducing corruption and bribery	Reduce violations by carefully following the Nissan Global Anti-Brib- ery Policy.	_	_	_	_	_
17	17.16	Technological cooperation toward a sustainable society	Serve as a technology leader in the automobile industry through the Re- nault-Nissan-Mitsubishi Alliance.	_	_	_	_	_

# RENAULT-NISSAN-MITSUBISHI

Renault-Nissan-Mitsubishi is the longest-lasting and most productive cross-cultural partnership in the auto industry. The goal of the Alliance is to turbocharge the member companies' growth and performance.

In 2017, the Alliance sold more than 10.6 million vehicles, becoming the world's largest automotive group in terms of sales of passenger cars and light commercial vehicles (LCVs).

The Alliance member companies offer vehicles from 10 brands: Nissan, Infiniti, Datsun, Venucia, Renault, Renault Samsung, Mitsubishi, Dacia, Lada and Alpine.

## Alliance 2022

On September 15, 2017, the Alliance announced a six-year plan targeted at doubling annual synergies by the end of the plan from €5 billion in 2016 to €10 billion by the end of 2022. We forecast global unit sales of more than 14 million and combined revenues of \$240 billion by the end of 2022.

Under Alliance 2022, the member companies will increase their use of common platforms, with 9 million units based on four common platforms. The plan will also extend the use of common powertrains to 75 percent of total sales.

Alliance 2022 plans a major expansion in shared electric vehicle technologies, alongside the development and deployment of advanced autonomous drive systems, vehicle connectivity and new mobility services.

Twelve new zero-emission electric vehicles will be launched by 2022, utilizing new common electric vehicle platforms and components for multiple segments. Over the same period, 40 vehicles will be introduced with different levels of autonomy, all the way to fully autonomous capability. Becoming an operator of robo-vehicle ride-hailing services is a major part of the new mobility services strategy.

# Technology Leadership

Renault-Nissan-Mitsubishi is working to build the vehicle of the future: electric, autonomous and connected. The Alliance is the undisputed leader in zero-emission mobility with more than 598,000 electric vehicles sold globally as of June 2018 since its first EV, the Nissan LEAF, went on sale in December 2010 followed by the Renault Zoe. The Nissan LEAF remains the world's best-selling EV and Renault ZOE the leading EV in Europe.

In March 2018, the Alliance announced the creation of a Business Development function under the leadership of Hadi Zablit. This unit is focused on future activities and breakthrough innovation. This includes the development of the Common Module Family A-segment platform, outside partnerships, connected vehicles and mobility services, as well as Alliance Ventures.

Announced in January 2018, Alliance Ventures is a new corporate venture capital fund that plans to invest up to \$1 billion to support open innovation over the next five years. The fund prioritizes open innovation in new mobility, including electrification, autonomous systems, connectivity and artificial intelligence. It is the largest corporate venture capital fund in the automotive industry.

#### GRI102-13

## The World Business Council for Sustainable Development

The Alliance is a member of the World Business Council for Sustainable Development (WBCSD). The WBCSD is an international association of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment.

#### GRI419-1

# REGARDING NONCONFORMING FINAL VEHICLE INSPECTIONS AT NISSAN'S PLANTS IN JAPAN

Since the discovery in September 2017 of nonconformities in the final vehicle inspection process at its plants in Japan, Nissan has been carrying out comprehensive compliance checks of various parts of its operations. In early July, Nissan proactively announced that it had also discovered misconduct as a result of a check of exhaust emissions and fuel economy tests within the final vehicle inspection process. Nissan understands and deeply regrets the concern and inconvenience caused to stakeholders these issues may have caused.

A full and comprehensive investigation of the facts, including the causes and background, is underway and Nissan will implement appropriate countermeasures based on the results. Strict compliance is a top priority for Nissan's management, and appropriate measures will be taken to address all issues. Nissan is committed to promoting and enforcing compliance and awareness thereof in all operational areas.

Oclick here for more information on nonconforming final vehicle inspections.

# ENVIRONMENTAL

# O POLICIES AND PHILOSOPHY FOR THE ENVIRONMENT

- O CLIMATE CHANGE
  - > STRATEGY FOR ADDRESSING CLIMATE CHANGE
  - > INITIATIVES THROUGH PRODUCTS
  - INITIATIVES THROUGH CORPORATE ACTIVITIES
- AIR QUALITY
- RESOURCE DEPENDENCY
- WATER SCARCITY
- O THIRD-PARTY ASSURANCE
- STRENGTHENING OUR BUSINESS FOUNDATION
  - > GOVERNANCE
  - LIFECYCLE ASSESSMENT TO REDUCE ENVIRONMENTAL IMPACT
  - STAKEHOLDER ENGAGEMENT
  - ENVIRONMENTAL CONSERVATION COST

# POLICIES AND PHILOSOPHY FOR THE ENVIRONMENT

GRI102-15 GRI103-1 GRI103-2 GRI103-3

- Nissan's Understanding Of Environmental Issues • Environmental Principle
- Materiality Assessment O Comprehensive Efforts Toward Key Issues
- Environmental Action Plan: Nissan Green Program 2022

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

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

#### GRI102-12

### Nissan's Understanding Of Environmental Issues

Our responsibility toward the environment is an important pillar of Nissan's sustainability. As a global automaker, Nissan is actively making efforts to identify the direct and indirect impacts of its business on the environment to help minimize them. To bring these efforts to fruition, Nissan has clearly defined its environmental principles and what we want to be, with an ultimate goal: "to reduce the environmental impact and resource consumption of Nissan's corporate operations and its vehicles throughout their lifecycle to a level that can be absorbed naturally by the Earth." Toward this end, the company endeavors to leave as small an ecological footprint as possible.

Recently, issues regarding the environment and society are attracting more and more attention. With the world population expected to reach 9 billion by 2050, society is facing various problems in areas such as poverty and hunger, energy, climate change, and peace. Aiming to resolve these issues, the United Nations adopted a resolution in September 2015 entitled "Transforming Our World: the 2030 Agenda for Sustainable Development." There are high expectations that not just nations, but also corporations will play a major role in realizing the Sustainable Development Goals (SDGs) made up by the 17 goals and 169 targets in the Agenda. The automobile industry has a mission to deliver sustainable mobility for all while alleviating the impact on the environment with regard to climate change, resource dependency, water and other areas. Nissan is committed to providing this greater value to society and acknowledges that its activities and efforts in this area must be taken to the next level.

Nissan decides on the issues it will tackle and the level of such efforts taking into consideration overall social trends and materiality assessment results among other factors.

OClick <u>here</u> for more information on Nissan supports the Sustainable Development Goals.

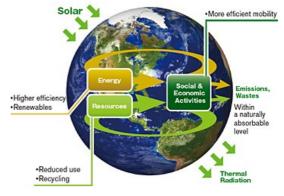
#### GRI102-16

## **Environmental Principle**

The "Corporate Environmental Principle" has been established to realize our Corporate Vision: "Enriching People's Lives."

Nissan's Environmental Philosophy-A Symbiosis of People, Vehicles and Nature

It is our view that the human capacity to show kindness and concern will form the basis of environmental protection. As we strive to understand the environment better, all of us at Nissan bring to our activities a shared concern for people, society, nature and the Earth. This commitment and concern is embodied in every Nissan product and in all of the company's operations, including sales, as the driving force of Nissan's ongoing contributions to a better society.



#### Ultimate Goal

To manage the environmental impact caused by our operations and products to a level that can be absorbed by nature. This also includes passing on rich natural capital to future generations.

What we want to be: "Sincere Eco-Innovator" "Sincere": To address proactively the environmental challenges and reduce the impact on the environment.

"Eco-Innovator" : To develop a sustainable mobility society, we will provide customers with innovative technology in our products and services.

### Materiality Assessment

The automotive industry is subject to environmental regulations and standards around the world, covering areas like  $CO_2$  and other exhaust emissions. This also includes energy, fuel efficiency, noise, material resources, water, chemical substances, and waste and recycling. As regulations become more stringent each year, consumer needs and interests concerning environmental performance are also changing.

To meet these demands, Nissan uses materiality assessments to analyze potential opportunities and risks. The company identifies these issues considered by both Nissan and stakeholders as of the utmost importance, and sets necessary policies and targets for solving them on a priority basis and incorporating them into its environmental strategy.

8	6		Nissan relevance	
		High (Limited business area)	Very high (Limit profit/sales volume)	Extremely high (Business stops)
	Extremely high		<ul> <li>Electrification</li> <li>Energy efficiency of facility</li> <li>Air quality</li> <li>Human health</li> </ul>	<ul> <li>Climate change</li> <li>Fuel economy</li> </ul>
Stakeholder relevance	Very high		<ul> <li>Material sourcing</li> <li>Renewable energy</li> <li>Occupational health and safety</li> <li>Stakeholder engagement</li> <li>Wastewater and landfill management</li> <li>Emissions from facility</li> <li>Chemical substance use</li> <li>Reduce, reuse, recycle</li> <li>Resource efficiency</li> </ul>	<ul> <li>Water use</li> <li>Maas (Mobility as a service)*</li> <li>Governance</li> </ul>
	High		• Ecosystem	

#### Materiality Matrix (Environment)

\*The concept of not owning and driving a car but providing a service for mobility, including ride sharing, etc.

# **Comprehensive Efforts Toward Key Issues**

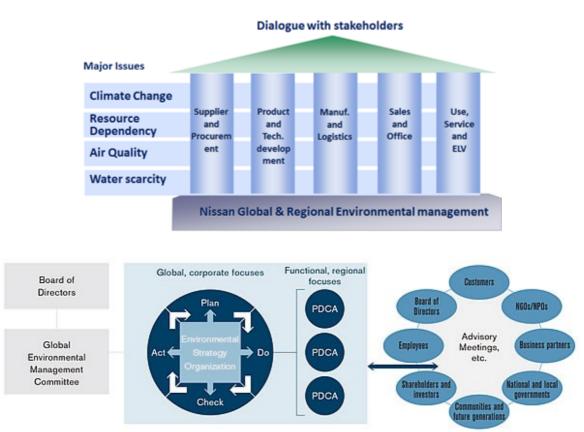
Nissan believes that it is vital to pay close attention to the needs of society and deeply understand its expectations toward Nissan. By developing a process that takes these demands into account, the formulation of a plan to tackle global issues becomes a feasible endeavor.

Nissan considered medium- to long-term environmental forecasts and engaged in dialogue with external experts, investors, organizations and alliance partners, alongside internal analysis of potential opportunities and risks, to identify four key environmental issues for both the company and its stakeholders: Climate Change, Resource Dependency, Air Quality and Water Scarcity.

To help find solutions to these issues and create new value, Nissan will take steps starting from products and corporate activities and throughout the entire supply chain. The company will also work actively to collaborate with NGOs in conserving ecosystems and biodiversity and engage with the next generation.

# Nissan's Framework For Global Environmental Management

Nissan promotes solid governance through its Global and Regional Environmental Management Committees (G-EMC and Regional EMCs). Executives meet regularly to discuss emerging material risks, and corporate opportunities that should be implemented in the future plans.



Environmental Management Organization

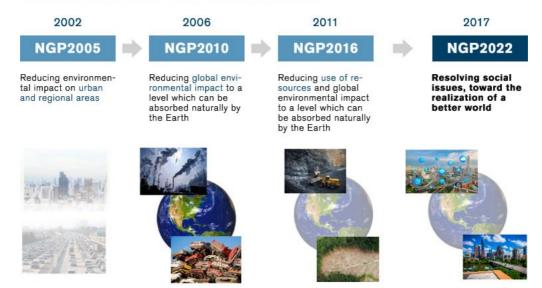
## Environmental Action Plan: Nissan Green Program 2022

In the process of developing actions to realize its environmental philosophy "A Symbiosis of People, Vehicles and Nature," Nissan has pursued a series of midterm environmental action plans, unveiled in 2002 under the name, "Nissan Green Program (NGP)." Under NGP2016, the company continued taking steps toward its ultimate goal of reducing environmental dependence and impact to levels that nature can absorb. Nissan fully achieved the targets for the four key initiatives under NGP2016, which were zero-emission vehicle penetration, fuel-efficient vehicle expansion, corporate carbon footprint minimization and natural resource use minimization.

"NGP" has evolved to "NGP2022," and will accelerate efforts to address environmental issues, and at the same time strengthen the business foundation and work on creation of social value.

After the original draft of the new NGP2022 midterm environmental action plan was examined within Nissan, the fundamental concept was decided on the basis of feedback received from eight organizations, including the representatives of international organizations, NGOs and experts. The results of the materiality assessment were then reconsidered and the four key issues to address were selected. Every year the progress made toward addressing those key issues and specific initiatives toward that end will be disclosed.

#### Evolution of Nissan Green Program (NGP)



# Key Issues and Challenges

On top of being compliant, we strive for continuous improvement regarding the following issues, based on social needs and a long-term vision.

#### **Climate Change: We aim for carbon neutrality**

Promote society's decarbonization through expansion of electrification/intelligence of vehicle, and innovative future monozukuri

#### Resource Dependency: We aim for no new material resource use

Create a system that uses resources efficiently and sustainably, and promote services to use vehicles more effectively (circular economy)

#### Air Quality: We aim for zero impact

Ensure cleaner exhaust emissions and create a comfortable in-cabin environment to protect human health and to reduce the impact on ecosystems

#### Water Scarcity: We aim for zero stress

Reduce water consumption and manage water quality with monozukuri that is considerate of impact and dependency on ecosystems

The program will contribute to the achievement of the new medium-term plan Nissan M.O.V.E. to 2022 announced in November 2017.

• Click <u>here</u> for more information on Nissan Green Program 2022.

NG	P2022 Framework and	Action Plan	FY2017 Results			
Clim	ate change (Product)					
	g-term vision: Achieve 90% r cles by 2050 (vs. 2000)	reduction of CO <sub>2</sub> emissions from new				
1	Product CO <sub>2</sub> reduction	-40% of CO2 reduction from new cars (vs. FY 2000; Japan, U.S., Europe, China)	Reduced by 33.4%			
2	Solid EV leadership	_	Released the new Nissan LEAF Retained its position of the best-selling EV in the world			
3	Support driver's behavior	Pilot program with connected car	Promoted activities			
4	Expansion of vehicle usage	Promoted expansion of usage				
Clim	ate change (Corporate)					
	g-term vision: Achieve 80% r ities by 2050 (vs. 2005)	reduction of CO2 emissions from corporate				
5	Overall corporate CO <sub>2</sub> reduction	-30% reduction of CO <sub>2</sub> per vehicles sold (vs. FY2005, global)	Reduced by 29.2%			
6	Manufacturing CO2	-36% reduction of CO <sub>2</sub> per vehicles produced, (vs. FY2005, global)	Reduced by 31%			
7	Logistic CO <sub>2</sub>	-12% reduction of CO2 per production (vs. FY2005; Japan, North America, Europe, China)	Reduced by 11.9%			
8	Office CO2 (including R&D sites)	-12% reduction of CO <sub>2</sub> per floor areas (vs. FY2010)	Reduced by 7.9%*			
9	Dealer CO2	-12% reduction of CO2 per floor areas (vs. FY2010; Japan)	Reduced by 10.1%*			
10	Renewable energy (RE) use expansion	Promote RE introduction	Increased use of renewable energy in manufacturing plants to 10%			
Air q	juality					
11	Cabin air quality improvement	Research on technical solutions	Promoted activities			
12	Reduce VOC from manufacturing	Promote reduction of VOC per paint areas vs. FY2010	Reduced by 25.8%			

NG	P2022 Framework and	Action Plan	FY2017 Results		
Reso	ource dependency				
Long	-term: Reduce dependency	on new materials by 70%			
13	Development of bio-material	Research on technical solution	Development underway		
14	Chemical substance use	Implementation of Alliance policy on chemical substance management	Strengthened the Alliance policy and definite implementation		
15	New resource usage minimization	Reduce new natural resource usage by 30% per vehicle	Promoted activities toward 2022 target		
16	Remanufactured parts fulfillment	Double the remanufactured item coverage (vs. FY2016)	Promoted activities toward 2022 target		
17	Expand battery reuse opportunity	Expansion of the EV battery reuse business	Opened a plant specializing in refabrication of used EV batteries in Namie, Futaba District, Fukushima Prefectur		
18	Adoption of die-less forming	Plan & implement technical development	Development underway (Prototype application)		
19	Waste reduction (manufacturing)	BAU -2% (Japan) and BAU -1% (overseas) of waste reduction	Reduced by 4% (Japan) Reduced by 10.5% global		
20	Wastes to landfill reduction (manufacturing)	Landfill ratio reduction	Reduced wastes to landfil to 4.5% (global)		
Wate	er scarcity				
21	Water reduction (manufacturing)	-21% reduction of water per global production (vs. FY2010)	Reduced by 16.2%		
Busi	ness foundations				
22	Governance enhancement	Ensure management of the environmental compliance policy	Adherence to the environmental compliance policy		
23	Conduct LCA	Measure life-cycle environmental impact of vehicle and new technology	Continued reducing environmental impact of produces with electrification technologies		
24	Engagement with suppliers	Conduct environment data survey to promote engagement	Conducted surveys with specific suppliers with the objective of incentivizing activities to reduce environmental footprint		
25	THANKS activities promotion	Proceed with Supplier THANKS activities	Held 9 THANKS activities		
26	Nissan Green Purchasing Guidelines	Adoption of updated policy	Adherence to Green Purchasing Guidelines		

NG	P2022 Framework and	Action Plan	FY2017 Results
27	Next-generation education program	Global expansion of Nissan Waku-Waku Eco School program	Preparation and expansion underway on a global level
28	Collaboration with NGOs for ecosystem conservation	Enhance collaboration and partnerships with NGOs	Carried out joint projects with WWF and Conservation International

\*The results for Office and Dealer sites in Japan are calculated using the 2010  $CO_2$  coefficient as the baseline value.  $CO_2$  coefficient in 2010 was 0.374 t- $CO_2$ /MWh.

# CLIMATE CHANGE

# STRATEGY FOR ADDRESSING CLIMATE CHANGE

- ◎ INITIATIVES THROUGH PRODUCTS
- ◎ INITIATIVES THROUGH CORPORATE ACTIVITIES



# STRATEGY FOR ADDRESSING CLIMATE CHANGE

Toward A Carbon-Neutral Society: Promoting Decarbonization Through Expansion Of Electrification, Vehicle Intelligence And Innovative *Monozukuri* (Manufacturing)

In 2015, the United Nations Climate Change Conference (COP21) adopted a historic climate change agreement to keep temperature rise "well below" 2 degrees Celsius. This COP21 agreement will promote measures for global greenhouse gases (GHG) emissions to peak as early as possible and achieve a balance between GHG emissions by human activity and carbon absorption by nature in the second half of this century. Also in 2015, the United Nations announced the Sustainable Development Goals (SDGs) as part of the 2030 Sustainable Development Agenda. In this pledge SDG 13, "Take urgent action to combat climate change and its impacts," is one of the key goals.

## Nissan's Steps To Reduce Co<sub>2</sub> Emissions

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

# Working At Each Stage Of The Value Chain

To realize carbon neutrality, Nissan Green Program 2022 (NGP2022) will seek to reduce carbon emissions from our corporate activities, products and services.



Reducing CO<sub>2</sub> emissions from corporate activities

Reducing CO<sub>2</sub> emissions from products and services

# INITIATIVES THROUGH PRODUCTS



Policies and Philosophy for Initiatives Through Products
 Management of Initiatives Through Products
 Achievements of Product Initiatives-Promoting Clean Technologies-

#### Policies and Philosophy for Initiatives Through Products

#### **Reduction of Emissions from Our Products and Services**

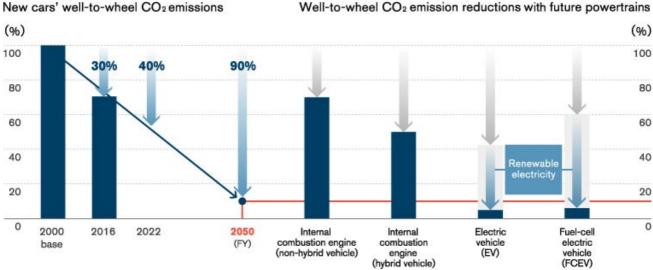
According to a 2014 report from the Intergovernmental Panel on Climate Change (IPCC), the transport sector was responsible for 14% of the total anthropogenic greenhouse gas emissions from economic sectors in 2010. As a business with continued growth in both unit sales and passenger activities in the transport sector, Nissan is aiming to decouple emissions from company growth.

#### Nissan's Long-Term Vision

In 2006, based on Nissan's calculations incorporating the findings of the IPCC's Third Assessment Report, the company set targets with scientific grounding for reducing  $CO_2$  emissions by 2050. Nissan aims to reduce Product  $CO_2$  emissions from new vehicles by 90% compared to 2000 levels by 2050. In order to achieve this target, we realized that we need to drastically reduce "well-to-wheel"  $CO_2$  emissions for new vehicles and formulated poFuel efficiency targets set in NGP 2010 and NGP2016 have been achieved, and with the commitment to "become a leader in zero-emission vehicles," Nissan has made mass production of electric vehicles a reality—a world first. Nissan is making steady progress to achieving a 90% reduction by 2050.

In NGP2022, to continue on track to achieving the 2050 target, Nissan is aiming to reduce CO<sub>2</sub> emissions from new vehicles by 40% compared to levels of 2000 (Scope: Japan, the U.S., Europe and China). Nissan has become a leader in green technology through electrification of its products. We believe we can contribute substantially to the realization of the "well below 2 degrees Celsius" temperature rise scenario. And this will also help to keep our business sustainable.

Nissan is driving the evolution of new technologies and its business. Under the umbrella of Nissan Intelligent Mobility, the company is taking a consistent approach to marketing, introducing and deploying new technologies, functions, businesses and services.



#### Well-to-wheel CO<sub>2</sub> emission reductions with future powertrains

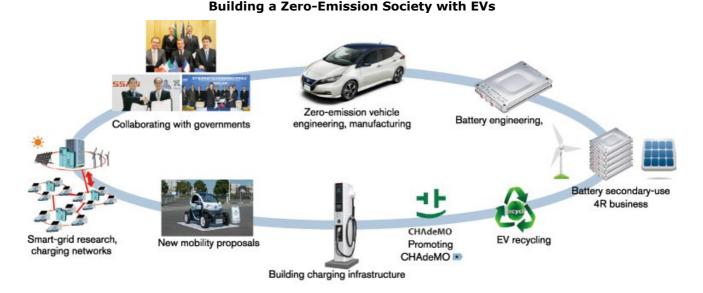
#### **Policies for Clean Technologies**

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

#### 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. Nissan is promoting the development and production of zero-emission vehicles and the construction of infrastructure, forging numerous zeroemission partnerships with national and local governments, electric power companies and other organizations.

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



#### Establishing Leadership in the EV Sector

Nissan's commitment to sustainable mobility addresses concerns over climate change and supports sustainable growth 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 expand the EV market as they can be reused after their initial use for transportation power.

#### GRI103-2

#### Management of Initiatives Through Products

#### Key Activities in NGP2022

The level of  $CO_2$  emitted while driving is influenced not only by vehicle performance and fuel type but also by traffic conditions and how the vehicle is driven. Also new vehicle usage patterns make it possible to contribute to the decarbonization of society. Thus to mitigate real-world  $CO_2$ , Nissan takes a threefold approach: vehicle, driver and new mobility value.

#### 1. Adopt cleaner energy to reduce vehicle CO<sub>2</sub> emissions

Extend electrification across all brands. Aggressively expand EV lineup and deploy e-POWER technology in core Nissan products for the Nissan Intelligent Mobility strategy.

#### 2. Improve support for driver behavior through connected technology and coaching

#### 3. Provide New mobility value

Provide new mobility services and expand the value of new types of mobility; pursue global expansion of V2X<sup>\*</sup> energy management solutions (commercialization in the United States and Europe, as well as expansion of Leaf to Home in Japan); carry out stakeholder engagement supporting V2X device commercialization.

\*V2X: Abbreviation for "Vehicle to Everything." This is a system that aims to reduce traffic accidents and congestion through both Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) communication.



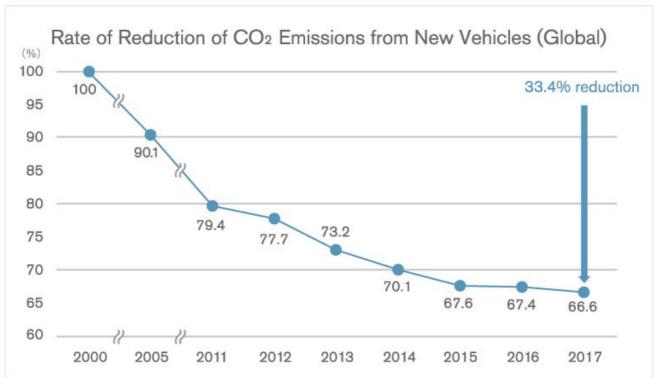
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## Achievements of Product Initiatives Promoting Clean Technologies

Aiming to Reduce New-Vehicle CO2 Emissions by 40%

Nissan strives to develop technologies to maximize the overall energy efficiency of internal combustion engines and improve transmission performance. It is also concentrating on boosting the efficiency of electrification systems that gather and reuse kinetic energy captured from braking. As one of its concrete initiatives for monozukuri technical innovation, starting with vehicle electrification, Nissan is selecting the optimum fuel-efficiency technologies for particular vehicles and launching them in the market, while taking into consideration such factors as the space within the vehicle, usage and economics. The aim is to reduce fuel consumption and CO<sub>2</sub> emissions without sacrificing the pleasure and ease of driving. Nissan aims to achieve the target of a 40% reduction\* in CO<sub>2</sub> emissions by fiscal 2022 compared to fiscal 2000.

\*CO<sub>2</sub> emissions from new vehicles in the Japanese, U.S., European and Chinese markets.



#### Rate of Reduction of CO<sub>2</sub> Emissions from New Vehicles (Global)\*

In fiscal 2017,  $CO_2$  emissions in Nissan's main markets of Japan, the U.S., Europe and China improved by 33.4% compared to the fiscal 2000 level as measured on the basis of corporate average fuel efficiency (CAFE). The sales in Japan of e-POWER models as well as other models improved the overall result.

\* Calculation of  $CO_2$  emission reduction rate was conducted by Nissan.

#### Nissan LEAF Sales Exceed 320,000

The Nissan LEAF is powered by a lithium-ion battery pack and an electric motor. It emits no CO<sub>2</sub> or other exhaust emissions during operation. The Nissan LEAF offers excellent, fun-to-drive performance, with smooth, strong acceleration and quiet delivery across a speed range comparable to that of other models, as well as great handling stability realized by well-balanced weight distribution. This all-new driving experience has earned the Nissan LEAF high marks from customers. The Nissan LEAF has been introduced in 51 markets to

date, with sales steadily increasing. Total cumulative sales worldwide exceeded 320,000 vehicles as of March 2018, maintaining the Nissan LEAF's position as the best-selling EV in the world. Across all EV models,



AC power consumption rate by JC08 mode (Measurement method of Japan's Ministry of Land, Infrastructure, Transport and Tourism)

including the e-NV200 and the Venucia e30, cumulative global sales have cleared the 380,000 mark. While the low environmental impact of EVs is attractive, consumer awareness of other characteristics, such as the low charging and operation costs and superior acceleration and steering performance, is likely to have been a factor in the strong sales.

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

Nissan has worked with local governments, corporations and other entities to deploy charging infrastructure and encourage adoption of EVs. The company has also established a Global Data Center to collect EV performance data from different countries, which is used to analyze driving and charging patterns. Nissan aims to leverage its valuable experience gained in different markets to further improve customer convenience.

The company's calculations show that the Nissan LEAF and other EVs produce considerably less CO<sub>2</sub> emissions over their entire lifecycle, from the extraction of raw materials, manufacturing, logistics and use to end-of-life disposal, compared to gasoline-powered vehicles of the same class.\* By contributing to the shift to renewable energy, EVs play an essential role beyond transportation to help achieve a low-carbon society.

NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2018

#### Nissan LEAF



• \* Click here for more information on the Nissan LEAF lifecycle assessment

#### Improved Battery Technologies Greatly Expand Driving Range of New Nissan LEAF

The new Nissan LEAF launched in October 2017 is a zero-emission vehicle equipped with such innovative technologies as Autonomous Drive, ProPILOT, ProPILOT Park, and e-Pedal that offer more convenience than ever as well as much greater output and driving range. These technologies have won high praise for the new Nissan Leaf, including Car Technology of the Year by the Japan Automotive Hall of Fame, the Best of Innovation Honorees for CES 2018 by the Consumer Technology Association (CTA), the 2018 World Green Car award at the 2018 New York International Auto Show in the United States and the Best Electric Car award at the 2018 What Car? Awards in Europe.

Whereas the output and driving range have been increased, the vehicle has been equipped with a lighter and more compact lithium-ion battery. The energy density of this battery is much greater than that of a lead-acid or a nickel metal hydride battery, so that a smaller battery can store the same amount of electricity. Nissan's lithium-ion battery can store a higher density of lithium-ion\*1, thereby increasing the battery's capacity. This improvement made it possible to increase the driving range of from 200 kilometers for the first model, released in 2010, to the current driving range of around 400 kilometers\*2 for the new Nissan LEAF. Another contribution to saving space and making the battery more compact is the reduction of the number of modules from two to just a single combined module for the new vehicle. The durability of the battery has also been improved so that the battery now comes with an eight-year, 160,000-kilometer warranty. The new Nissan LEAF features improved energy consumption.

\*1 The layered structure of the cathode material, newly adopted by Nissan, contributes to larger battery capacity as it helps to store lithium ions at high density.

\*2 By JC08 mode (Measurement method of Japan's Ministry of Land, Infrastructure, Transport and Tourism).

Expanded Deployment of the 100% Electric-Motor-Powered Drivetrain e-POWER in the Nissan Serena

In November 2016, Nissan launched the new compact Note e-POWER including an innovative new drive system. Use of the e-POWER system was expanded to include the Serena in March 2018 and it has been well received. This system is a 100% electric powertrain making use of EV technology in the Nissan LEAF. A gasoline engine is used to charge the batteries, which provide power to the electric motors that drive the wheels of the Note e-POWER. Thanks to this full-electric motor drive system, drivers can enjoy the powerful, responsive acceleration and excellent quietness in various settings and driving environments. As with other gasoline-powered and hybrid cars, the e-POWER system uses gasoline as its power source, removing the need to charge the battery. Driven completely by electric motors, it offers driving pleasure equivalent to that of an EV, making it a vehicle with an all-new electric powertrain completely different from the hybrid systems commonly included in compact cars to date.

As the gasoline engine does not directly drive the wheels, it can be run at its optimal speed at all times to generate electricity. In city driving, where this vehicle is expected to see frequent use, the Note e-POWER achieves top-class fuel efficiency\* compared with standard hybrid vehicle types.

In e-POWER Drive mode, the driver can accelerate or decelerate by simply using the accelerator pedal, and the regenerative brake system also helps improve fuel efficiency by charging the battery.

\*As of time of sale, as measured by Japanese fuel-efficiency standards: Serena e-POWER, 26.2 km/L.

#### Serena (g-CO<sub>2</sub>/km) 180 168 155 160 140 120 -POWER 100 89 80 60 Conventional model S grade New model

\*CO<sub>2</sub> emissions calculated from the fuel consumption rate by JCO8 mode (measurement method of Japan's Ministry of Land, Infrastructure, Transport and Tourism)



\*Fuel values (CO<sub>2</sub> emissions) certified by relevant European authority

#### Production in China of Nissan Sylphy Zero Emission, an EV Geared to Chinese Drivers

The Nissan Sylphy Zero Emission offers the exciting performance of a 100% electric powertrain while providing stability and reliability, as well as a high level of convenience and comfort for drivers and passengers. This new model is built based on the core LEAF technologies, the world's best-selling electric car. The Sylphy Zero Emission embodies Nissan Intelligent Mobility, the company's vision for changing how vehicles are powered, driven and integrated into society.

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

Based on the Nissan NV200, a multipurpose commercial van, the e-NV200 combines the interior roominess and versatility of the NV200 with the acceleration performance and refinement of an EV. It has been produced at Nissan's Barcelona Plant in Spain since June 2014 and, as of March 2018, is sold in 26 countries, including Japan and a number of European nations. The e-NV200 is also used by taxi services in Barcelona and Amsterdam and has been adopted in Japan by a wide range of customers from urban delivery businesses to local authorities.

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

The inclusion of a hydraulic brake system makes the vehicle's regenerative braking more effective, enabling a driving range of 300 kilometers on a full charge (in JC08 mode). Two 100-volt power outlets that can draw a maximum of 1,500 watts of power from the battery are installed in the front-seat side and the cargo area (Japan model). They provide a convenient and safe electrical power source that comes in handy for offsite jobs, outdoor events and construction work, or in the case of an emergency. The driver can also manually set the remaining battery level. By halting the power supply automatically with anything from 2 to 11 of 12 bars remaining on the battery gauge, the driver can ensure that the vehicle has enough energy left in the main battery pack for the ride home.

#### GRI302-5

Construction companies that have adopted the e-NV200 as a power source for onsite work have given positive feedback. Because they now do not use fuel-powered generators, noise is reduced around the site, and efficiency is improved due to better communication.

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

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



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



# e-NV200 Vehicles Put to Use by Japanese Municipalities and Corporations

Starting from the end of fiscal 2015, Nissan is making some of e-NV200 available free of charge on a three-year lease to Japanese municipalities and corporations that have identified applications making the best use of the vehicle's potential. Through this approach of building a track record of innovative EV uses, the company aims to collect examples of ways to put the e-NV200's strengths to work, sharing them nationwide and thereby helping to increase EVs' presence in the market. The examples can be categorized broadly into five types, depending on which EV benefit they focus on: their eco-friendliness, quiet operation, affordability and role as a mobile power source or as part of a business continuity plan (BCP). Nissan expects these proposed activities to take full advantage of the e-NV200's clean, quiet operation and electric power availability.

Fun Court Izumi, a geriatric health care facility of the Heisei-Kai Koyama Healthcare Group in Miyagi Prefecture, uses the e-NV200 to transport elderly people to and from the facility for their regular rehabilitation visits as well as to transport them to other medical institutions connected with the facility. Learning from its experience after the Great East Japan Earthquake in 2011, Fun Court Izumi has secured a method of transport it can use in times of disaster with EVs that can be driven even when gasoline is hard to obtain.

In Tochigi Prefecture, large-scale producers of flowers and other crops are taking advantage of the spacious cargo area for their deliveries. By using a small hydroelectric facility to produce electricity for use in vehicle charging, operating costs can be significantly reduced. The vehicle's battery pack can also be used in greenhouses and as an emergency backup power supply.

At the Nishi Ward municipal office in Yokohama, Kanagawa Prefecture, an e-NV200 is being used to transport food samples in a program to prevent food poisoning and infection. A refrigerator unit plugged into the cargo outlet makes it possible to transport the samples at a stable temperature. The vehicle is also used during outdoor hygiene education events at different locations.

The Child-Raising Division in Iwakura, Aichi Prefecture, uses an e-NV200 to take children from a small daycare center by the station to their different nurseries. Children and nurses can enjoy the journey as they can talk without being disturbed by the noise of the vehicle engine or smell of gasoline. The vehicle also acts as a power supply for acoustic equipment and microphones used at sports days and other events.

The New Energy Industries Division in the city of Osaka uses its e-NV200 in environmental surveys, including monitoring aircraft noise. As well as transporting all equipment, the vehicle acts as a power source at survey locations.

In Okinawa, meanwhile, an e-NV200 is used as a shuttle bus in the Okinawa Peace Memorial Park by the foundation operating the park. With no emissions or noise, the vehicle contributes to protecting the natural environment.

#### New e-Bio Fuel-Cell Technology Announcement

In November 2017, Nissan announced that it is currently researching and developing an e-Bio Fuel-Cell system that runs on bio-ethanol electric power. The new system—a world first for automotive use—features a solid oxide fuel-cell (SOFC) power generator. SOFC technology can utilize the reaction of multiple fuels, including ethanol and natural gas, with oxygen to produce electricity with high efficiency. Infrastructure to support e-Bio Fuel-Cell usage is relatively easy to roll out, and vehicles using this technology feature running costs as low as those for EVs, allowing smooth introduction to the market. Because it combines the efficient electricity generation of SOFC with the high energy density of liquid fuels, it can enable driving ranges on a par with gasoline-powered vehicles. Commercial users that require higher uptime for their vehicles should increasingly be able to take advantage of this solution thanks to the short refueling times it offers.

#### Fuel-Cell Electric Vehicles

Fuel-cell electric vehicles (FCEVs) are another type of zero-emission vehicle that do not produce CO<sub>2</sub> or other harmful emissions. Powered by electricity generated from hydrogen and oxygen, FCEVs emit only water during their operation. Nissan considers that in building a sustainable mobility society, both FCEVs and EVs are possible options from an energy diversity perspective. In alignment with Japanese government policies, Nissan—together with Toyota Motor Corp., Honda Motor Co. and other companies— jointly established Japan H2 Mobility, LLC (JHyM; pronounced "J-hime"), targeting the full-fledged development of hydrogen stations for fuel cell vehicles (FCVs) in Japan. To tackle the key issues raised during the beginning stage of FCV promotion, JHyM will ensure that infrastructure developers, automakers and investors each do their part to support the successful strategic deployment of hydrogen stations in Japan, promoting effective operation and facilitating a positive cycle of improved convenience for FCV users. The ultimate goal of JHyM is to smoothly increase the number of FCVs on the road in Japan, and thus to sustainably build the hydrogen station business.

#### Progress in Plug-in Hybrid Vehicles

Plug-in hybrid electric vehicles (PHEVs) are hybrid cars that can be charged from an external source in addition to relying on electricity generated by their engines. Nissan is developing PHEVs, leveraging Alliance technologies with a view to launching them in the future.

#### Development of the VC-Turbo

In November 2017, Nissan deployed the VC-Turbo, the world's first production-ready variable compression ratio engine, in the new QX50 model of the Infiniti-branded luxury models. It was also announced that the deployment of VC-Turbo will be expanded in the United States to the new Altima. The engine is expected to deliver the power of a V6 gasoline engine with comparable fuel efficiency to a four-cylinder engine.

The engine swiftly selects the optimum compression ratio between 8:1 (for high performance) and 14:1 (for high efficiency), based on the driving conditions and driver input. The VC-Turbo is lighter and more compact than comparable non-turbocharged engines, while also delivering multiple benefits to customers including reduced fuel consumption and emissions, lower noise levels and reduced vibration.

#### 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.

In the field of material substitution, Nissan has put its own 1.2 gigapascal (GPa) Ultra High Tensile Strength Steel with High Formability, the world's first such material to combine these levels of tensile strength and workability, to use in the Infiniti Q50 (marketed in Japan as the Skyline) and the Murano in North America and, in 2016, in the Infiniti Q60. And in March 2018, Nissan became the first carmaker in the world to use Super High Formability (SHF) 980 megapascal (MPa) Ultra High Tensile Strength Steel for the front and rear members and other body frame parts of the Infiniti QX50 launched in the United States. These Ultra High Tensile Strength Steel reduces the amount of material used while allowing production on the same lines, making it possible to create lighter cars with thinner components while reducing total costs. Nissan plans aggressively to expand the use of Ultra High Tensile Strength Steel, aiming for it to make up 25% of the company's vehicle parts by weight, and is actively pursuing new application technologies for it. The material makes up 27% of the new QX50 and enhances driving performance while reducing the vehicle's weight.

Nissan is developing weight reduction technologies for reducing  $CO_2$  emissions and reducing use of new material.

#### GRI203-1 GRI203-2

Reducing Congestion and Enhancing Environmental Performance with ITS

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

Under commission from Japan's New Energy and Industrial Technology Development Organization (NEDO), Nissan worked with the Beijing Municipal Commission of Transport beginning in 2010. In the Chinese capital, the company conducted tests of 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 resident drivers in Beijing's Wangjing district used Portable Navigation Devices with DRGS and eco-driving 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 estimated 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  $CO_2$  emissions would decrease by approximately 10%.

The Beijing Municipal Commission of Transport presented Nissan with an award for its major contributions toward easing congestion, saving energy and improving the environment in Beijing through this successful project. In an official publication, China's Ministry of Commerce also gave the company a Corporate Leadership Award. As the next step, Nissan is conducting research projects aimed at raising air quality using ITS and EVs in cooperation with the Chinese government and universities. The company has learned that eco-driving support services, which encourage gentle braking and acceleration and maintenance of stable speed, lead to safer driving and consequently can reduce traffic congestions caused by traffic accidents while also helping to improve air quality. The study also proved that even in China, which relies heavily on coal power, EVs not only contribute to saving energy but also lead to reductions in PM 2.5 air pollution and CO<sub>2</sub> emissions on a well-to-wheel basis. These research results have won high praise from the Chinese government and the Beijing municipal government, and are reflected within their respective environmental plans. At present, Nissan is continuing to conduct research on the effect of Nissan Intelligent Mobility on traffic and the environment. The company is working actively to improve urban environments and air quality.







#### Nissan EVs: Contributing to Realization of Smart Grids

Nissan EVs provide the additional value to customers of being able to extract the electricity stored in the high-capacity lithium-ion batteries used for driving for other uses through a power conditioning system. In Japan today there are around 7,000 power conditioners for Vehicle to Home (V2H) use. This makes it possible, for instance, to charge an EV at a time of the day when electricity rates are low to store the electricity in the vehicle and then utilize that electricity for household use during peak-rate times, thereby reducing electricity bills. The system also allows the user to store in the vehicle surplus renewable energy generated by a house that consumed later for household uses, thereby helping to reduce  $CO_2 \neg$ 

emissions. In Japan, the United States and Europe many EVs are also providing electricity to buildings through Vehicle to Building (V2B) initiatives, and the number of those cases is increasing every year. Both V2H and V2B allow EVs to supply electricity to households, retail stores, and commercial buildings as a backup power source in the case of a power outage during an emergency. The electrical connector used to charge Nissan EVs conforms to the CHAdeMO protocol, a charging method used globally that offers a high level of versatility, safety and reliability.

Another development is Vehicle to Grid (V2G) technologies that connect EVs to the power grid. It makes possible for the batteries of many EVs to work in tandem to charge or discharge electricity so as to optimally control electricity demand within society. From 2017 to 2018, Nissan participated with Japanese power companies (Tokyo Electric Power Company Holdings, Inc. and Kansai Electric Power Company, Inc.) on tests to demonstrate the use of "virtual power plants" (VPPs). The objectives include accumulating technologies that combine the systems of power companies and the vehicle information from EVs and establishing a method to predict the percentage of EV users who charge vehicles in line with requests made by power companies, thereby helping to make possible, at the power-grid level, the effective use of renewable energy and the stable provision of electricity that suits the future era of widespread EV usage.

#### Providing Infrastructure to Support Zero-Emission Vehicles

Quick chargers, which can charge batteries from a minimum charge up to 80% capacity in around 30–40 minutes,\* are a key part of the infrastructure needed for the widespread adoption of EVs. Nissan launched its quick chargers in 2011, and in the following year, the company improved them to make chargers quieter and the connector easier to use, as well as enabling on-the-spot payment. Nissan produced them until November 2015, providing global hardware support for charging infrastructure. Nissan is encouraging local governments, public and commercial facilities and others in Japan to install quick chargers. It is also continuing to increase the number of Japanese Nissan dealerships with quick chargers, which stood at 1,800 as of March 2018.

In May 2014, Nissan jointly established a new company, Nippon Charge Service (NCS), with other Japanese automotive manufacturers to promote installation of chargers for electric-powered vehicles (including EVs and plug-in hybrid vehicles). Under NCS management, the companies aim to provide a convenient charging network service letting drivers charge their vehicles anywhere with a single card. Nissan has also started working with companies that support the spread of EVs by installing EV chargers at their workplaces to make it easier for employees to commute using the Nissan LEAF.

The company offers the Nissan Zero-Emission Support Program 2 to make it more convenient for customers across Japan to operate their EVs. A set monthly membership fee gives them unlimited access to almost all quick-charging points in Japan. This contributes to lowering running costs by reducing the cost of charging EVs at home.

In the United States, Nissan runs the "No Charge to Charge" program, which provides free access to selected charging stations for two years with the purchase or lease of a new Nissan LEAF. As of April 2018, the program is running in 55 areas where Nissan LEAF sales are high, including San Francisco, Los Angeles, Seattle and Portland, Oregon, and the company plans to expand to more areas in the future.

In Europe, Nissan is also working with companies in the energy industry and others to install quick chargers compliant with the CHAdeMO protocol. It is also collaborating with BMW to encourage the spread of EVs and PHEVs by boosting the number of quick-charging stations that can be used by vehicles from both companies. In the United States, as of January 2017, a total of 174 stations had been built in 33 states, and the plan was announced of completing another 50 during the 2017 calendar year. As of the end of March 2018 there were 18,000 CHAdeMO-compliant quick chargers worldwide.

\* Based on the time it takes to charge 40 kWh, 30 kWh and 24 kWh batteries to 80% of capacity from when the battery warning light comes on. Charging times can vary according to the type of quick charging unit and environmental temperature.

# Expanding EV Usage in California

California has been actively promoting zero-emission vehicles and has successfully become the numberone EV selling state in the U.S. At the same time, drivers are only using EVs for short distance travel such as shopping or commuting. Entrusted by Japan's New Energy and Industrial Technology Development Organization (NEDO) and with the California government's cooperation, Nissan Motor Co., Ltd., and Kanematsu Corp., in partnership with U.S. charging infrastructure service provider EVgo, started a project in November 2016 by installing over 55 chargers in more than 25 locations along one of California's most important travel arteries while studying EV use and driving patterns through a smartphone app that provides a user-friendly charging experience. The data collection and analysis will continue until September 2020 and the results will be utilized for further EV market expansion.

#### The Nissan New Mobility Concept

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

Since fiscal 2011, with cooperation from Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Nissan has held driving trials together with corporations and local governments to conduct tests and surveys. Following the MLIT's January 2013 announcement of an authorization system for use of ultracompact vehicles on public roads, Nissan is currently testing vehicles in 25 areas, including the area

covered by "Choimobi Yokohama," a round-trip urban ride-sharing service that Nissan operates together with the city of Yokohama. To date, the vehicles have mainly been used for tourist purposes as part of regional revitalization, but in preparation for the 2020 Tokyo Olympics and Paralympics, Nissan has been testing ultracompacts as rentals car for sightseeing on Tokyo's island of Shikine-jima since May 2018 as a model business for expanding the use of EVs on small islets, as promoted by the Tokyo metropolitan government.

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



The "Choimobi Yokohama" round-trip ride-sharing service using the Nissan New Mobility Concept.

### **Environmental Data**

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orp	orate A	verage	Fuel I	Efficier	ncy (CA	FE, JC	08 Moo	de) in J	apan					
(km	/L)													
24									407	20.0	40.7		20.6	
20								18.2		20.0	19.7	19.5		
20					15.3	16.1	16.3							
16	13.6	14.2	14.0	14.0			16.3							
12														
8														
4														
0	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	(FY)

In fiscal 2017, mainly due to strong sales of the Note e-POWER, the average fuel economy improved to 20.6 km/L in JC08 mode. This represents an improvement of 5% compared to fiscal 2016. Provisional values determined by Nissan are used.

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0		28.4	29.2	28.0	28.5	29.7	29.4	32.0	32.2	33.7	34.0	34.1	35.2		07.5	29.5	30.1	29.1
0	26.2	6.2 20.4 0.8 20.7	0.7 20.7	0.7 21.9	21.2	21.7	21.9	22.9	23.1	25.7	24.9	24.8	24.4	27.1	21.5			
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0	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

Corporate Average Fuel Efficiency (CAFE) in the United States

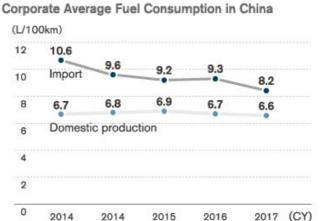
In fiscal 2017, sales of large-segment vehicles increased, resulting in CAFE of 39.8 MPG for passenger cars, 2% worse than fiscal 2016. In the light-duty truck segment, comparatively heavier models sold well, worsening the CAFE from 30.1 MPG to 29.1 MPG.

GRI302-5

#### GRI302-5



In 2017, as there was no major change in the sales mix of petrol, diesel and electric vehicles,  $CO_2$  emissions remained around the same level as fiscal 2016.



In 2017, fuel efficiency for domestically produced vehicles remained around the same level as the previous calendar year, while the level for import vehicles improved by 10% due to improvements in heavier models.

#### GRI302-5

#### Ratio of Powertrain Type (Shipment Base)

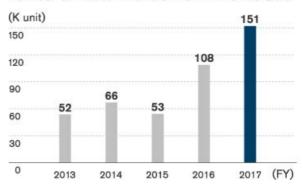
	Unit	Gasoline- powered vehicles	Diesel- powered vehicles	Natural-gas drive vehicles	Hybrid drive vehicles	Electric drive vehicles	
Japan	%	63.0	1.0		1		
North America	%	98.8	0.5		10		
Europe	%	57.5	39.5	0.0	1.9	3.0 💌	
Other	%	95.1	4.5				

\*Models with e-POWER make up 2% of global unit sales.

#### EV

The total sales worldwide of the Nissan LEAF has exceeded 320,000 vehicles. The e-NV200 is being sold in the European and Japanese markets. The Sylphy Zero Emission will be launched on the market in China in the latter half of 2018.

#### Number of 100% EV and e-POWER Units Sold

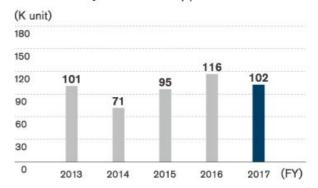


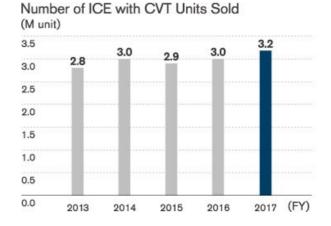
#### Hybrid

In fiscal 2013, Nissan launched two rear-wheeldrive vehicles, the Skyline and the Infiniti Q50, equipped with an original hybrid system. Nissan is also expanding use of its hybrid system for frontwheel-drive vehicles. The extremely compact system is combined with the Xtronic transmission in the fiscal 2013 Pathfinder and Infiniti QX60. Nissan launched the X-Trail Hybrid in fiscal 2015 with expansion of its electric vehicle (EV) mode and optimized system mode operation to offer 25% improved fuel economy compared to equivalent conventional vehicles, achieving toplevel fuel economy in its class.

#### The Xtronic Transmission

Nissan has achieved the goal of shipping 20 million vehicles equipped with Xtronic transmission (Continuously Variable Transmission, or CVT), 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 3.2 million Xtronic vehicles in fiscal 2017, bringing the cumulative total to 25 million.





#### Number of Hybrid Units Shipped

# INITIATIVES THROUGH CORPORATE ACTIVITIES

GRI103-1

GRI103-2

Nissan's Policies and Philosophy for Initiatives Through Corporate Activities
 Management of Initiatives Through Corporate Activities
 Achievements of Corporate Initiatives

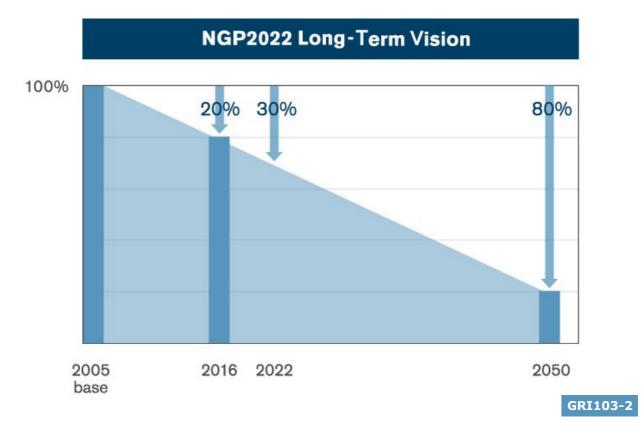
# Policies and Philosophy for Initiatives Through Corporate Activities

### Reducing CO2 Emissions from Corporate Activities

Nissan is taking steps to reduce its greenhouse gas emissions from corporate activities by promoting energy efficiency measures and the use of renewable energy. Based on calculations incorporating the findings of the Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), Nissan aims to reduce its overall corporate CO<sub>2</sub> emissions by 80% compared with 2005 levels by 2050. Backcasting from this long-term vision, Nissan achieved a 22.3% reduction in NGP2016. The company established, as part of NGP2022, the midterm goal of a 30% reduction in corporate CO<sub>2</sub> emissions by 2022. Manufacturing is the company's major emissions source, but Nissan is also aiming to reduce greenhouse gas emissions from logistics, offices and dealerships, setting targets and taking action in each area.

### Long-Term Vision and Road Map

As a long-term vision for climate change, Nissan aims to realize an 80% reduction in  $CO_2$  emissions from corporate activities by 2050 (vs. 2005)



# Management of Initiatives Through Corporate Activities

### NGP2022 Objectives

The following are the objectives set by NGP2022 for each part of the value chain in order to make progress toward achieving Nissan's long-term goals in 2050.

Overall: 30% reduction in  $CO_2$  emissions from global corporate activities by 2022 (vs.

2005/per vehicle sold)

Manufacturing: 36% reduction in  $CO_2$  emissions from global manufacturing sites by 2022 (vs. 2005/per vehicle manufactured)

Logistics: 12% reduction in  $CO_2$  emissions from logistics in Japan, North America, Europe and China by 2022 (vs. 2005/per vehicle manufactured)

Offices: 12% reduction in  $CO_2$  emissions from global offices by 2022 (vs. 2010/per floor area)

Dealerships: 12% reduction in  $CO_2$  emissions from dealerships in Japan by 2022 (vs. 2010/per floor area)

GRI103-1 GRI103-2 GRI302-2

## Achievements of Corporate Initiatives

GRI305-1 GRI305-2 GRI305-4

A 30% Emission Reduction from Corporate Activities

In fiscal 2011, Nissan strengthened its management and broadened the scope of measurable objectives to include logistics, offices and sales companies in addition to production sites. At the same time, the company expanded its emission-related initiatives, introducing high-efficiency equipment, energy-saving measures and the use of renewable energy. Nissan aims to reduce  $CO_2$  emissions associated with its corporate activities by 30% globally from fiscal 2005 levels by fiscal 2022, as measured by the index of  $CO_2$  emissions per vehicle (total emissions generated from Nissan global corporate activities divided by the total Nissan vehicles sale volume), and the result in fiscal 2017 was a 29.2% reduction from the fiscal 2005 t- $CO_2$ /vehicle level.

GRI302-1 GRI302-4 GRI305-1 GRI305-2 GRI305-4 GRI305-5

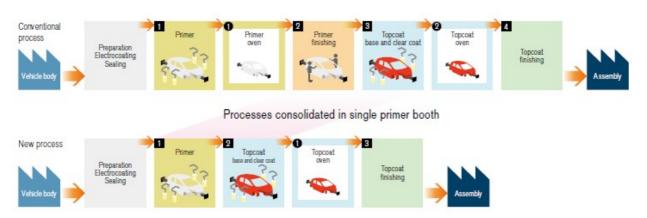
Energy Saving in Global Production

Most CO<sub>2</sub> emissions in the manufacturing process come from the consumption of energy generated by fossil fuels. Nissan engages in a variety of energy-saving activities in the manufacturing process in pursuit of the lowest energy consumption and CO<sub>2</sub> emissions of any automobile manufacturer.

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

The three-wet paint process adopted by Nissan removes the need to bake in between the primer layers and the topcoat layers. Instead, layers are applied successively before baking, achieving a reduction in  $CO_2$  emissions of more than 30%, according to Nissan calculations. In 2013, the company introduced this process in Nissan Motor Kyushu (NMK), the Smyrna Plant in the United States, the second Aguascalientes Plant in Mexico (started operations November 2013) and the Resende Plant in Brazil (started operations February 2014) as well as the COMPAS (Cooperation Manufacturing Plant Aguascalientes) manufacturing complex, a

joint venture with Daimler México that started operations in December 2017. At NMK, the company was able to adopt the three-wet process with no shutdown of production lines and successfully shorten total production time.



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

#### Oven process

Reduces  $CO_2$  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).

To reach the defined objectives for  $CO_2$  emissions and the use of energy, Nissan solicits the necessary facility proposals from each global site, preferentially allocating investment based on the benefit in  $CO_2$  reduction compared to project costs. By making value of carbon one key factor in internal evaluations, Nissan enables more efficient investment and greater competitiveness.

Nissan plants use finely controlled lighting and air conditioning for low-energy-use, lowenergy-loss operations. The company is promoting  $CO_2$  emission reduction activities and introducing cutting-edge energy-conservation technology from Japan in its plants worldwide. Meanwhile, Nissan plants in all countries learn and share best practices with each other. In addition, Nissan Energy Saving Collaboration (NESCO) diagnoses energy loss at the plants and proposes new energy-saving countermeasures. These proposals could amount to a potential reduction in  $CO_2$  emissions of some 63,000 tons in fiscal 2017, according to Nissan calculations. A NESCO team was established for Japan in 2003, and teams for Europe, Mexico and China in 2013. A NESCO team has also been launched to support energy-saving efforts at Alliance partner Renault.

Nissan takes into consideration the balance of  $CO_2$  emissions for the entire company, its renewable energy usage rate and cost when sourcing the energy it uses, choosing suppliers best suited for achieving each goal.

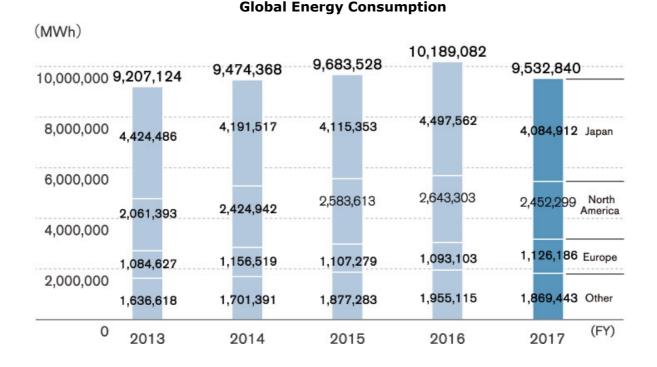
With these activities, in fiscal 2017,  $CO_2$  emissions per vehicle produced were approximately 0.50 tons, a reduction of 31% from the fiscal 2005 level.

						(FY)
	Unit	2013	2014	2015	2016	2017
otal	MWh	9,207,124	9,474,368	9,683,528	10,189,082	9,532,840
Japan	MWh	4,424,486	4,191,517	4,115,353	4,497,562	4,084,912
North America	MWh	2,061,393	2,424,942	2,583,613	2,643,303	2,452,299
Europe	MWh	1,027,027	1,156,519	1,107,279	1,093,103	1,126,186
Other	MWh	1,694,218	1,701,391	1,877,283	1,955,115	1,869,443
Primary						
Natural gas	MWh	2,894,901	3,060,122	3,346,141	3,537,674	3,701,640
LPG	MWh	339,751	295,800	303,826	249,426	179,945
Coke	MWh	149,232	199,801	206,307	217,431	218,618
Heating oil	MWh	226,513	225,114	188,943	209,232	147,522
Gasoline	MWh	263,663	322,624	302,564	303,040	299,000
Diesel	MWh	71,371	99,045	55,099	57,488	48,259
Heavy oil	MWh	61,359	58,274	34,289	43,853	27,652
External	67) 422					
Electricity (Purchased)	MWh	5,038,384	5,084,989	4,979,114	5,247,663	4,755,897
Renewable energy	MWh	118,917	154,515	141,076	157,226	133,212*
Chilled water	MWh	11,646	4,239	12,116	12,919	6,661
Heated water	MWh	6,227	4,635	4,630	4,690	5,000
Steam	MWh	133,849	110,953	100,000	136,593	128,038
Internal						
Electricity (In-house generation)	MWh	10,227	8,772	9,423	11,847	14,609
Renewable energy		10,227	8,772	9,423	11,847	14,609*
otal renewable energy	MWh	129,144	163,287	150,499	169,073	147,821

### **Energy Input**

\*1 Volume of renewable energy in electricity purchased by Nissan.

\*2 Volume of renewable energy generated by Nissan at its facilities and consumed for its own purposes.



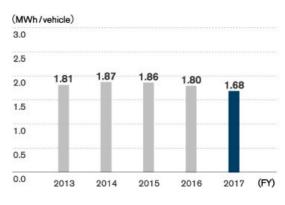
The total energy consumption of Nissan's global corporate activities during fiscal 2017 was about 9.532 million MWh, a 6.4% decrease from fiscal 2016. This reduction was primarily due to the promotion of energy-saving activities at facilities and changes in consolidated subsidiaries. Production sites globally accounted for 8.462 million MWh\* of total energy consumption.

• This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see <u>here</u>.

### Energy per Vehicle Produced

In fiscal 2017 energy per vehicle produced was 1.68 MWh, a 6.7% improvement from fiscal 2016.

Data for the Japan region includes manufacturing of powertrains and other components for use in overseas assembly operations. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values.



GRI302-3

GRI302-4

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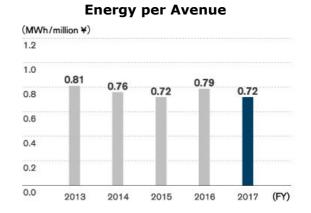
#### (By Region)

GRI302-1

	(FY)
Unit	2017
MWh/vehicle	4.14
MWh/vehicle	1.45
MWh/vehicle	1.45
MWh/vehicle	0.84
	MWh/vehicle MWh/vehicle MWh/vehicle

### Energy per Revenue

In fiscal 2017, global Nissan facilities saw energy per revenue fall to 0.72 MWh, a decrease of 9.5% compared to the previous fiscal year. Nissan is taking continuous steps toward decoupling financial capital generation from energy consumption.



GRI302-3

GRI302-4

GRI302-1

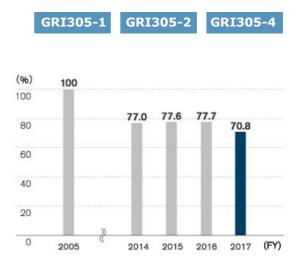
### Energy per Revenue

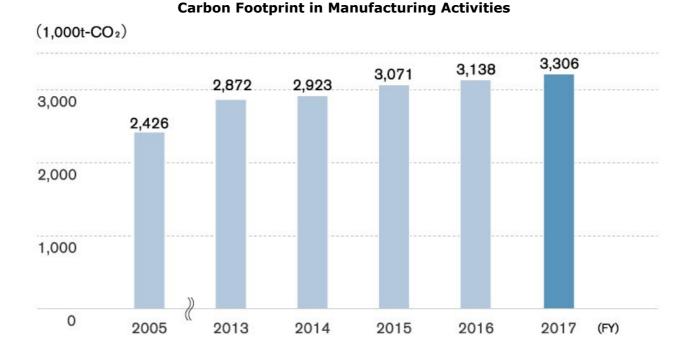
In fiscal 2017, the total of Scope 1 and 2 emissions was 3.306 million tons. Total  $CO_2$  emissions from manufacturing processes were 2.824 million tons (Scope 1 emissions: 0.812 million tons, Scope 2 emissions: 2.012 million tons).\*

• This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here.

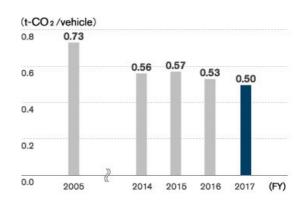
						(FY)
	Unit	2013	2014	2015	2016	2017
Scope1	t-CO <sub>2</sub>	812,062	861,457	926,790	963,661	912,476
Scope2	t-CO <sub>2</sub>	2,538,360	2,422,410	2,547,951	2,614,028	2,394,109
Scope1+2	t-CO2	3,350,422	3,283,867	3,474,741	3,577,689	3,306,584
Japan	t-CO2	1,446,871	1,267,676	1,479,572	1,579,089	1,333,335
North America	t-CO <sub>2</sub>	698,934	769,696	800,724	823,340	683,332
Europe	t-CO2	259,972	290,109	208,088	176,285	228,998
Other	t-CO2	944,644	956,386	986,359	998,976	1,060,920
Scope3						
Commuting	t-CO <sub>2</sub>	426,487	455,510	319,189	304,100	251,715 *
Logistics	t-CO2	1,678,903	1,608,582	1,598,891	1,925,281	1,567,248

Corporate Carbon Footprint per Vehicle Sold In fiscal 2017, overall corporate emissions were reduced by 29.2% compared to fiscal 2005, making steady progress toward the fiscal 2022 goal.





**Manufacturing CO<sub>2</sub> per Vehicle Produced** In fiscal 2017, Nissan's manufacturing CO<sub>2</sub> emissions per vehicle produced were 0.50 tons, 31% less than fiscal 2005, representing steady progress toward the fiscal 2022 goal.

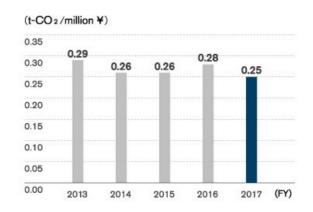


GRI305-2

GRI305-4

GRI305-1

GRI305-1 GRI305-2 GRI305-4



Scope 1 and 2 Emissions per Revenue In fiscal 2017, as measured by the per revenue  $CO_2$  emissions from our global operations, the result was 0.25 ton per ¥1 million.

GRI302-1 GRI302-4

### Promotion of Renewable Energy

Nissan is taking three approaches to promoting the adoption and social penetration of renewable energy according to the characteristics of each region. It operates in: generating its own power in company facilities; sourcing energy with a higher proportion of renewables; and leasing land, facilities and other Nissan assets to power companies. As an example of the first approach, Nissan's Sunderland Plant in the United Kingdom introduced 10 wind turbines supplying up to 6,500 kW of power. The plant also has a 4.75 MWh solar farm, installed in 2016, and together these renewable sources account for about 8% of the power it uses. Solar panels also produce about 200 kW at Nissan's plant in Spain, and Nissan's Zama Operation Center in Japan has developed small-scale hydropower

generators capable of creating around 0.5 kW of power from a drop of 2.5 meters from drainage pipes, currently being tested through use in the plant itself.

Regarding the second approach, the first Aguascalientes Plant in Mexico actively uses energy generated from biomass gas and wind power and has achieved a renewable energy usage rate of 50% since 2013.

Finally, Nissan leased 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's Samukawa Plant was leased for the same purpose in January 2014.

Through these efforts, Nissan has enhanced the renewable energy usage rate at production plants as part of reducing  $CO_2$  emissions. In fiscal 2017, the company's renewable energy usage rate reached 10%.

### GRI305-4

### More Efficient Logistics and Modal Shifts

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

components for plants from surrounding areas as much as possible.

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

In container transport, Nissan has taken a range of measures to improve container filling rates for parts transport, from using 40-foot "high cube" containers to running software simulations to reduce wasted container space.

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 are nearly all conducted 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 its vehicles. Today, the fleet has grown to include seven energy-efficient car carriers.<sup>\*1</sup>

While expanding its global logistics operations, Nissan is increasing efficiency and implementing a modal shift in transportation, targeting a 12%reduction in  $CO_2$  emissions by fiscal 2022 from the fiscal 2005 level, as measured by the index of  $CO_2$  emissions per vehicle.<sup>\*2</sup> In fiscal 2017,  $CO_2$  emissions per global vehicle were approximately 0.38 tons—a reduction of about 11.8%.

\*1 Access more information on Nissan's energy-efficient car carriers' page.

\*2 Total emissions generated from transportation to Nissan manufacturing sites and retail outlets in Japan, North America, Europe and China divided by the total number of vehicles transported.

### GRI305-5

### Logistics Volume

In fiscal 2017, global shipping decreased by some 11% from the previous fiscal year to reach 35,635 million ton-km. Nissan continues to strengthen its efforts to reduce shipping by upsizing trucks, improving truck loading rates, improving the fuel economy of car-transporting ships and shifting to rail and sea shipping.

						(FY)
	Unit	2013	2014	2015	2016	2017
Total	mil ton-km	37,719	35,243	35,546	39,930	35,635
Inbound	mil ton-km	12,883	11,578	11,221	10,634	9,699
Outbound	mil ton-km	24,836	23,665	24,325	29,296	25,935
Sea	%	64.3	62.0	60.1	60.9	57.6
Road	%	24.9	25.0	26.5	24.8	25.9
Rail	%	10.5	12.5	13.0	14.0	16.1
Air	%	0.4	0.5	0.3	0.4	0.4

### GRI305-4

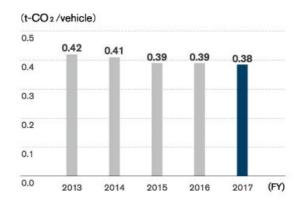
### CO<sub>2</sub> Emissions in Logistics

In fiscal 2017,  $CO_2$  emissions from logistics were 1,567,248 tons, a decrease of approximately 20% from the previous fiscal year. Emissions from air freight of parts significantly declined due to the localization of complete vehicle assembly and parts procurement, making a remarkable contribution to the reduction of the overall  $CO_2$  emission level.

						(FY)
	Unit	2013	2014	2015	2016	2017
Total	t-CO2	1,678,903	1,608,582	1,598,891	1,925,281	1,567,248
Inbound 💌	t-CO <sub>2</sub>	908,804	822,867	797,034	809,088	739,610
Outbound 💌	t-CO2	770,098	785,715	801,857	1,116,193	827,638
Sea	%	20.2	18.5	18.3	17.8	20.0
Road	%	61.7	60.5	65.7	62.1	64.6
Rail	%	5.2	5.1	5.4	5.6	7.0
Air	%	12.9	15.9	10.6	14.5	8.4

\*"Inbound" includes parts procurement from suppliers and transportation of knockdown parts, and "Outbound" includes transportation of complete vehicles and service parts.

**CO<sub>2</sub> Emissions per Vehicle Transported** In fiscal 2017, despite an expansion in global production, CO<sub>2</sub> emissions per vehicle transported were 0.38 tons, an improvement on the previous fiscal year.



### **Office Initiatives**

Nissan promotes efforts to reduce  $CO_2$  emissions at its offices in Japan, North America, Europe and China.

In Japan, through Nissan Trading, the company operates the Nissan Power Producers and Suppliers (PPS) scheme, sourcing clean energy for which  $CO_2$  emissions and costs have been taken into account through Japan's PPS system. In 2017, approximately 26,657 MWh of clean energy was supplied to five Japanese business locations.\*

Nissan Energy Saving Collaboration (NESCO) teams have also expanded the scope of their activities beyond production plants to contribute to reducing emissions in the Nissan Technical Center in Atsugi.

The company's efforts go beyond  $CO_2$  management. Nissan is pursuing other environmentally friendly policies, such as improving its video and telephone conference facilities and using software 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.

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



### Green Building Policy

With ISO 14001 management processes for evaluating environmental impact, Nissan makes it a key task to optimize its buildings in the construction or refurbishing stages to make all its structures greener.

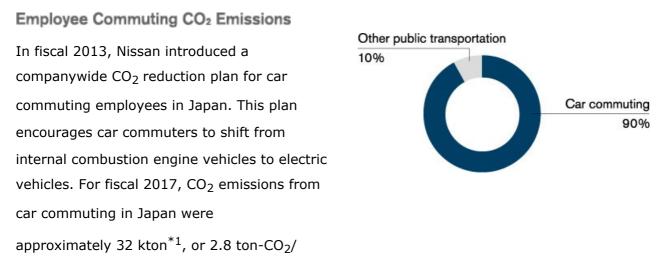
Evaluation metrics in this area include buildings with a smaller environmental footprint, such as lower CO<sub>2</sub> emissions; construction methods producing less waste and emissions; and reduced use of hazardous materials and other quality control tasks. Furthermore, in Japan Nissan uses the Ministry of Land, Infrastructure, Transport and Tourism's Comprehensive Assessment System for Built Environment Efficiency (CASBEE) as one performance index. Among Nissan's current business facilities, the Global Headquarters in the city of Yokohama has earned CASBEE's highest "S" ranking, making it the second Nissan structure to do so following the Nissan Advanced Technology Center (NATC) in Atsugi, Kanagawa Prefecture. The Global Headquarters gained a Built Environment Efficiency Rating of 5.6, the highest CASBEE rating for a new structure, making it one of Japan's greenest office buildings. The building's use of natural energy sources to reduce its energy usage and its CO<sub>2</sub> emissions were evaluated highly, as were its methods of water recycling and its significant reduction in waste produced.

### **Dealership Initiatives**

Nissan promotes CO<sub>2</sub> management at dealerships with the aim of reducing total emissions per floor area by 1% each year. Nissan's retail outlets also work continually to increase energy efficiency. Many have adopted high-efficiency air conditioning, insulation films, ceiling fans and LED lighting. During renovation work, some outlets have installed lighting systems that make use of natural daylight, as well as insulated roofs. In addition, regarding sourcing of electricity with low environmental load, Nissan broadened supply from Nissan and other PPS systems to provide 143,183 MWh of power (equivalent to an annual reduction of some 3,278 tons in CO<sub>2</sub> emissions) to 1,023 retail outlets in the Kanto, Chubu, Tohoku, Kansai and Kyushu regions. Since April 2000, Nissan has run a unique environmental facility certification system based on ISO 14001 for dealerships called "Nissan Green Shop." The company's environmental policy requires all dealerships in Japan to meet certain standards and undergo annual audits by Nissan. The dedicated evaluation sheet has a total of 84 KPIs and is regularly revised to reflect the requirements of national legislation, local communities and the Nissan Green Program.



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



vehicle annually.

- \*1 Calculated by using below parameters together with vehicle homologation data:
- Average car commuting range (Japan): 9,300 km/vehicle-year
- CO<sub>2</sub> emission factor for gasoline-powered vehicles (National Greenhouse Gas Inventory Report of Japan [2009]): 0.33 kg-CO<sub>2</sub>e/km
- CO<sub>2</sub> emission factor in fiscal 2016, Tokyo Electric Power Company: 0.000474 t-CO<sub>2</sub>/kWh
- \*2 Employees of Nissan offices and manufacturing plants in Japan, fiscal 2017.

### Scope 3 Emissions by Category

Nissan conducted a study based on the Corporate Value Chain (Scope 3) Accounting and Reporting Standard from the GHG Protocol. The results showed that about 90% of Scope 3 emissions were from the use of sold products.

		(FY)
Category	Unit	2017
1. Purchased goods & services	kt-CO <sub>2</sub>	17,971
2. Capital goods	kt-CO <sub>2</sub>	1,203
3. Fuel- and energy-related activities	kt-CO <sub>2</sub>	412
4. Upstream transportation & distribution	kt-CO <sub>2</sub>	740
5. Waste generated in operations	kt-CO <sub>2</sub>	197
6. Business travel	kt-CO <sub>2</sub>	230
7. Employee commuting	kt-CO <sub>2</sub>	252*
8. Upstream leased assets	kt-CO <sub>2</sub>	0
9. Downstream transportation & distribution	kt-CO <sub>2</sub>	874
10. Processing of sold products	kt-CO <sub>2</sub>	11
11. Use of sold products	kt-CO <sub>2</sub>	190,261*
12. End-of-life treatment of sold products	kt-CO <sub>2</sub>	425
13. Downstream leased assets	kt-CO <sub>2</sub>	470
14. Franchises	kt-CO <sub>2</sub>	0
15. Investments	kt-CO <sub>2</sub>	0
Total		213,044

● \* The values marked with an asterisk are subject to assurance by KPMG AZSA Sustainability Co., Ltd. Recorded CO<sub>2</sub> emissions for Category 11 (the use of sold products) increased in fiscal 2017 compared to the previous year due to a change in calculation methods. For details, please see <u>here</u>.

### Carbon Credit

Nissan Motor Iberica, S.A. in Barcelona and Cantabria, Spain, entered EU-ETS, and the verified allowance earned for fiscal 2017 was 45,477 tons.

# AIR QUALITY



• Air Quality Policies And Philosophy • Air Quality Achievements • Air Quality Data

# Air Quality Policies And Philosophy

With concern that the degradation of ecosystems may be proceeding more rapidly and extensively than ever, companies must recognize both their impact on ecosystems and their dependence on the services that ecosystems provide. By reducing exhaust emissions, providing a pleasant in-cabin environment to customers, and considering ecosystems, Nissan hopes to realize mobility that makes daily life healthier.

According to the State of Global Air 2017 report issued by the US-based Health Effects Institute (HEI), 92% of the world's population currently lives in regions where particulate matter smaller than 2.5  $\mu$ m (PM2.5) exceeds the 10  $\mu$ g/m<sup>3</sup> basic level specified by World Health Organization (WHO) Air Quality Guidelines. Furthermore, the Organization for Economic Cooperation and Development (OECD) predicts that the global population will exceed 9 billion by 2050, with around 70% of people concentrated in cities, making air pollution in urban areas an even more pressing issue.

For an automobile company, air pollution stands alongside climate change and congestion as an issue for cities in particular, and one that must be faced in order to contribute to its resolution.

Nissan proactively sets strict environmental goals and targets as it pursues development of cleaner combustion technologies, catalysts for purifying emissions and other solutions. The ultimate goal is for automotive emissions to be as clean as the atmosphere. The company introduces vehicles that meet emission regulations in each country in a timely manner. Nissan aims to reduce the environmental impact of society as a whole by offering vehicles with highly efficient, cutting-edge emission-reduction technologies at reasonable prices. Nissan's Sentra CA, released in the United States in January 2000, was the first gasoline-powered vehicle from any of the world's automotive companies to be eligible for Partial Zero Emissions Vehicle (PZEV) credits in California.

Additionally, Nissan is working to improve air quality through the use of Intelligent Transport

Systems (ITS) that tackle traffic congestion and other urban environmental issues. The use of the Nissan LEAF and other EVs, which produce no  $CO_2$  emissions during operation, is an effective way to reduce air pollution in urban areas. As a leader in this area, Nissan is promoting zero emission mobility and the construction of infrastructure in partnership with national and local governments, electric power companies and other industries. With the development in progress on Autonomous Drive technologies projected to be in practical use from 2020, drivers are expected to spend more time in their vehicles, making it even more important for that space to be pleasant and safe. NGP2022 calls for research and development not just to make exhaust emissions cleaner but also to improve the quality of the in-cabin experience.

Nitrogen oxide (NOx), sulfur oxide (SOx) and volatile organic compounds (VOCs) are recognized as common forms of emissions arising from vehicle manufacturing facilities. Nissan is taking strict measures with respect to all three, ensuring that management standards and systems for atmospheric emissions are thoroughly followed and acting to reduce exhaust volumes.

Nissan is also actively working to continue reducing VOC emissions, through initiatives such as improving paint processes at manufacturing sites.



# Air Quality Achievements

### GRI305-5

### Compliance with Emission Regulations (Passenger Cars Only)

While Nissan has zero-emission vehicles, which are the ultimate clean cars, 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.

	(FY)
Unit	2017
%	99.5
%	100 💌
%	99.8
%	100

\* Passenger cars and light commercial vehicles only.

### Plant Emission Management

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

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

### Lower VOC Emissions

Volatile organic compounds (VOCs), which readily evaporate and become gaseous in the atmosphere, account for approximately 90% of the chemicals released in Nissan's vehicle production processes. The company is working to increase the recovery of cleaning solvents and other chemicals and to reduce the amounts of these substances emitted from its plants ahead of implementation of new regulations in each country where it operates. Nissan is also introducing water-based paint lines that limit VOC emissions to less than 20 grams per square meter of painted surface. The company has adopted these lines in the Nissan Motor Kyushu as well as at two plants in Aguascalientes in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the United States and the Huadu Plant in China. Nissan achieved a reduction of 25.8% by fiscal 2017 in VOC emissions by painted surface area from fiscal 2010 levels.

# Air Quality Data

### Emissions

In fiscal 2017, NOx and SOx emissions from Nissan facilities were 651 tons and 36 tons, respectively. The increase in NOx emissions was due to longer usage times for plant cogeneration units.

						(FY)
	Unit	2013	2014	2015	2016	2017
NOx	ton	450	453	450	430	651
SOx	ton	40	40	37	31	36

### Volatile Organic Compounds (VOCs)

In fiscal 2017, VOCs from manufacturing plants were 11,152 tons globally, approximately 7% decrease from fiscal 2016. This was achieved by efforts such as switching to use of materials containing fewer VOCs, including water-based paints.

						(FY)
	Unit	2013	2014	2015	2016	2017
Total	ton	11,734	11,316	10,820	11,933	11,152
Japan	ton	3,492	2,826	2,850	3,580	3,232
North America	ton	5,338	5,511	5,309	4,851	4,284
Europe	ton	2,904	2,979	2,661	3,502	3,636

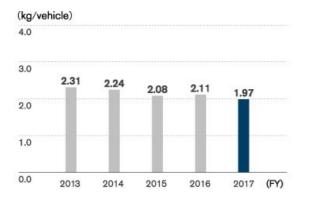
GRI305-7

# **VOC Reduction from Paint Shop Technologies**

In 2013, Nissan opened its most advanced paint plant in the world. The state-of-the-art facility in Smyrna, Tennessee, sets new standards for quality, efficiency and environmental impacts, as it is capable of reducing energy consumption by 30%, carbon dioxide emissions by 30% and volatile organic compound (VOCs) emissions by 70%. The plant uses an innovative three-wet paint process that applies all three paint layers in succession, before the vehicle goes into the oven. The plant is Nissan's "Showcase Project" as part of the U.S. Department of Energy's Better Buildings Better Plants Challenge, where Nissan has committed to reducing energy intensity in its three U.S. plants by 25% by 2020.

### VOCs per Vehicle Produced

In fiscal 2017, VOCs per vehicle produced were 1.97 kg, a 7% decrease from fiscal 2016.



(By Region)

		(FY)
	Unit	2017
Japan	kg/vehicle	3.28
North America	kg/vehicle	2.53
Europe	kg/vehicle	4.98

### Released Substances Designated by PRTR Law (Japan)\*

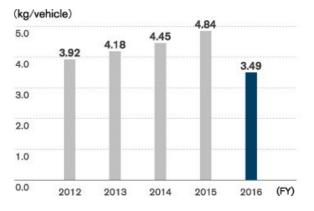
In fiscal 2016, released substances designated by the PRTR (Pollutant Release and Transfer Register) Law in Japan were 3,539 tons, a decrease from the previous fiscal year. Changing the paints used reduces the total amount of these substances used, which in turn lowers atmospheric emissions each year.

						(FY)
	Unit	2012	2013	2014	2015	2016
Japan site total	ton	4,158	4,183	3,879	4,129	3,538
Oppama	ton	715	676	402	488	778
Tochigi	ton	942	1,155	1,317	1,435	1,016
Kyushu	ton	1,394	1,300	1,152	1,173	730
Yokohama	ton	581	579	547	531	545
lwaki	ton	183	128	114	132	144
NTC	ton	343	347	347	370	325

\* The table shows chemical substance emissions calculated based on the Japanese government PRTR guideline. PRTR emissions show total volume excluding substances adherent to the product.

PRTR Emissions per Vehicle Produced (Japan)

In fiscal 2016, PRTR emissions per vehicle produced in Japan were 3.49 kg, approximately 30% decrease from the previous fiscal year. The reduction in atmospheric emissions was achieved by careful selection of paints.



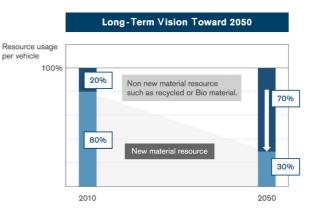
# RESOURCE DEPENDENCY

Resource Dependency Policies And Philosophy
 Resource Dependency Achievements
 Reuse Data
 Resource Dependency Achievements: Waste



# Resource Dependency Policies And Philosophy

With the world's population forecast to exceed 9 billion by 2050, demand for natural resources like minerals and fossil fuels is set to rise. This makes it even more important to maximize the value obtained from these resources. The Sustainable Development Goals adopted by the United Nations in 2015 also emphasize the importance of managing resources sustainably and using them efficiently.



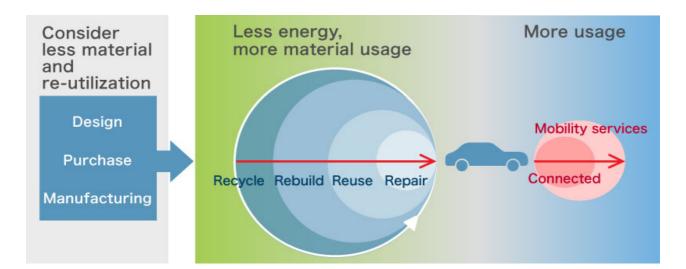
Automobiles are made of many components, incorporating a diverse range of resources. The combination of these resources creates new value. In addition to using resources as efficiently as possible, Nissan has increased its resource diversification and improved the proportion of renewable resources and recycled materials among them. Giving due consideration to ecosystems, Nissan must become more competitive as it pursues green growth. Working toward the long-term vision of reducing dependency on new materials to 70% by 2050 in order to maintain its new resource usage at 2010 levels, the company is striving to minimize use of natural resources.

### GRI103-2 GRI103-3

## Resource Dependency Management

In order to use our precious and limited resources efficiently, environmental impact when extracting these resources must be kept to a minimum, while waste generated during vehicle production and scrap from end-of-life parts must be recycled as far as possible without compromising quality into materials that can be used in the same types of products. Using this approach known as closed-loop recycling, Nissan is focusing its efforts on recycling three kind of materials—steel, aluminum and resin, which account for a large proportion of vehicle content yet also have a major impact on the environment.

As part of NGP2022, Nissan is developing systems for using resources efficiently and sustainably across their entire lifecycle and has adopted the concept of the "Circular Economy" to maximize the value it provides to customers and society. Together with promoting the use of recycled materials and recycling end-of-life vehicles, Nissan strives to incorporate reusable resources in its activities at the design, procurement and manufacturing stages. The company also gives priority to managing chemical substances with re-utilization in mind, as well as endeavoring to make vehicles more lightweight with less material. Nissan will promote the efficient use of resources with further reduced energy requirements, and expansion of repaired, remanufactured and reused parts for the vehicle utilization stage. Nissan will also increase value for society and the variety of ways cars can be used by promoting electrification and autonomous driving of the cars it sells, pursuing connectedness and providing mobility services such as ride sharing.



# **Resource Dependency Achievements**

### Increasing Usage of Recycled Material to 30%

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

To address these issues, Nissan has implemented a policy to minimize the volume of newly extracted natural resources, and is focusing its efforts on incorporating the use of highly recyclable materials from the early developmental stage while also making structural improvements for ease of recycling. In addition, Nissan is also promoting the reduction of resources used in the manufacturing process together with a more efficient use of resources. The company's recycling efforts are based on the approach that once a natural resource is extracted, it should continue to be used, while maintaining quality, to minimize environmental impact. Nissan has achieved its goal set in NGP2016 to increase to 25% the recycled material usage ratio per new vehicle for which production began in fiscal 2016 in Japan, the United States and Europe.

Furthermore, in NGP2022, this goal has been raised to 30% for fiscal 2022. Nissan intends to increase the amount of recycled material in vehicles it manufactures on a global scale, including Japan, Europe and North America while promoting cooperation with suppliers.

### Recyclability Rate and Recovery Rate

Nissan considers the three Rs—reduce, reuse and recycle—starting with the design stage for new vehicles. Since fiscal 2005, all new models launched in the Japanese and European markets have achieved a 95% or greater recyclability rate.<sup>\*</sup>

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.

\* Calculated by Nissan based on 1998 Japan Automobile Manufacturers Association definition and calculation guidelines (in Japan) and ISO 22628 (in Europe).

### ELV Programs

Nissan has joined forces with other automotive companies to promote the recycling of endof-life vehicles (ELVs) through dismantling and shredding. In fiscal 2017, the company achieved a final recovery ratio for ELVs of 99.7% (actual value) in Japan. At the same time, it reduced 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.

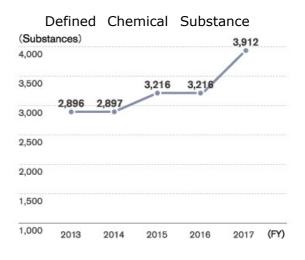
### Reducing Scarce Resource Usage

Scarce resources called rare earths are a necessary component of motors for EVs and HEVs. Uneven distribution of rare earth elements, and the balance of demand and supply that leads to price fluctuation, are making it important to reduce their usage.

In 2012, Nissan developed a new electric motor that requires 40% less dysprosium (Dy) compared to conventional EV motors. This motor is currently used in the Nissan LEAF, and Nissan is successively installing it in its hybrid vehicles. The 2016 Note e-POWER achieves a 70% reduction in Dy in its motor magnets and from 2017 these are also being used in the new Nissan LEAF. The company is conducting technical research on further reductions and has the ultimate goal of achieving zero usage of Dy in other components as well.

### GRI305-7

**Proper Use of Regulated Chemical Substances** Nissan revised its standard for assessment of hazards and risks in the Renault-Nissan Alliance, actively applying restrictions to substances not covered by regulations that are increasingly the subject of consideration around the world. As a result, the number of substances covered by the Nissan Engineering Standard in fiscal 2017 rose to 3,912. These are thought to be necessary in future for efforts toward the repair, reuse, rebuild and recycle loop for resources.



Olick <u>here</u> for more detailed chemical substances governance.

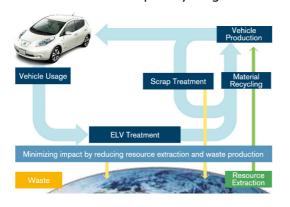
GRI301-2 GRI301-3

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

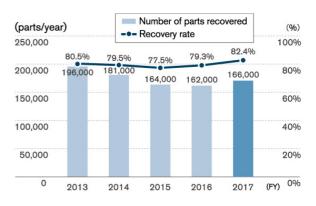
In order to further reduce natural resource usage, Nissan is working to reduce the steel and aluminum scrap left over in the manufacturing process. The company is also working globally with business partners to collect and reuse this scrap as material for new vehicles. For example, it uses electric-furnace sheet steel made from steel scraps in the Rogue, the Murano and other vehicles produced in North America. End-of-life aluminum wheel rims are also collected for recycling in the form of new wheels or chassis components. In fiscal 2017, Nissan collected about 3,340 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 life as bumpers in the Nissan LEAF and many other new vehicles. This initiative has been expanded to Nissan's joint venture in China, Dongfeng Motor Co., and in 2014 to production of replacement bumpers. Exchanged bumpers collected from dealerships are being recycled as materials used under covers and for other components. An enhanced bumper return program allowed Nissan to collect and recycle about 166,000 pieces of bumpers in fiscal 2017, representing 82.4% of bumpers removed at Japanese dealerships.

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



Closed-Loop Recycling



#### **Recovered Bumpers**

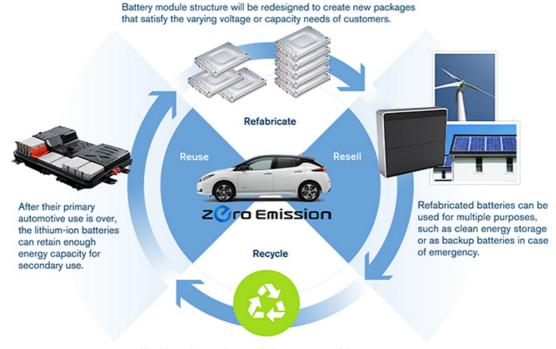
### GRI301-3

Joint Venture to Promote Second-Life Use for Batteries

Lithium-ion batteries used in Nissan's EVs retain capacity well beyond the useful life of the vehicles themselves. The "4R" business model—which reuses, resells, refabricates and recycles lithium-ion batteries—allows 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 Corp., 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 already started sales of them for houses and apartment buildings. 4R Energy is actively developing a range of storage systems built with used Nissan LEAF lithium-ion batteries. In addition to conducting an ongoing experiment with a large-capacity storage system in Osaka's Konohana Ward since 2014, it expanded its activities in November 2015 by launching a power system stabilizer test in Satsumasendai, Kagoshima Prefecture. It has also started testing a small-capacity storage system at a commercial facility in Okinawa Prefecture, refining its performance assessment for used module units and selection standard technologies. In July 2015, the Nissan Advanced Technology Center adopted an energy management system built from 24 used Nissan LEAF batteries. A factory for the reuse and refabricating of used lithium-ion batteries from EVs, the first of its kind in Japan, began operation in the town of Namie, in Fukushima Prefecture, from March 2018. It will be a world first for recycled lithium-ion batteries which have been refabricated to be sold as replacement batteries for EVs. These recycled lithium-ion batteries will also be used in stationary power storage systems and electric forklifts.

In addition to in Japan, Nissan is extensively involved with 4R activities in the United States.



### 4R Concept

Used batteries can be recycled to recover useful resources.

### Namie Town Project

Nissan and 4R Energy Corp. (4R) are participating in a project called The Reborn Light, to make streetlights at the 4R battery reclamation factory in Namie town, Fukushima Prefecture, by reusing batteries from Nissan LEAF vehicles. The streetlights will be installed in Namie, which was affected by the Great East Japan Earthquake of March 11, 2011.

As the use of EVs has rapidly become more popular, it is anticipated that the number of lithium-ion batteries recovered from EVs will increase dramatically from 2018 onward. Not only economic issues such as substantial price rises in the future for materials used in making such batteries, but also from environmental and social aspects, the use and application of reusable EV batteries has been attracting attention.

Nissan and 4R have teamed together to combine solar panels for generating electricity and used batteries from the Nissan LEAF to bring about the production of street lights that light up completely off the main power grid, and do not need electric cables or power points. The Reborn Light project will provide lights for the town of Namie as part of the town's recovery efforts since it was devastated by the earthquake and tsunami of March 11, and is assisting the town's residents in their everyday lives. The plant is the first new factory located in the industrial area of the town newly-established after the disaster and is expected to help revitalize the local economy and contribute to the town's growth.

Olick here for more information on The Reborn Light Project

# Used EV Battery Sales for Households Launched in Europe

Nissan has launched "second life" initiatives to extend use of its EV lithium-ion batteries. In Europe, it has joined with multinational power management company Eaton Corp. to launch sales of xStorage Home, a residential home energy system. Because the system is built around used EV batteries, it can be offered at a lower price. However, customers can also opt to purchase an xStorage Home unit that uses new Nissan EV batteries. xStorage Home allows owners to store energy purchased from the power grid during the cheapest hours of the day, as well as solar power generated during the daytime. This can then be used in the home during peak times when energy prices increase. The xStorage Home unit also has the capability to provide energy back to the grid in countries where the conditions enable customers to do so. This provides another potential revenue stream as customers will be able to sell stored energy back to the grid when demand and costs are high. The systems, available in six configurations, are designed to meet diverse customer needs, with features including simple remote operation and monitoring via a dedicated smartphone app. A business version—xStorage Building—makes it possible for corporations with high energy consumption to manage their usage and supply power for their own activities more sustainably and intelligently. In November 2016, Nissan and Eaton signed a 10-year contract with Amsterdam ArenA to provide used Nissan LEAF batteries for backup power uses. The globally renowned entertainment venue is the home stadium of soccer team Ajax Amsterdam and has hosted many famous concerts and sporting events over the years. With the introduction of xStorage Building, there will be no more concerns about power cuts at the 55,000-capacity facility.

### GRI301-3

### Expansion of Remanufactured Parts

Parts with the potential for recycling include those reclaimed from end-of-life vehicles, 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 retail 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.

In NGP2022, Nissan will strengthen management for the deployment of Nissan Green Parts in Japan, Europe and North America and in 2022, aim for twice the number of parts deployed in 2016. This initiative provides customers who seek to use cars for a longer period of time with the new option of using remanufactured parts.



Alternator



Starter Motor



Air Conditioning Compressor

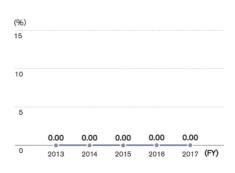
GRI301-1 GRI301-2 GRI301-3

# Reuse Data

### Namie Town Project

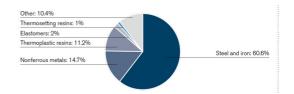
Nissan is making efforts to expand the use of recycled plastic in its vehicles, as well as developing technologies for this. Recycled plastic use in fiscal 2017 was 11%, which was based on the best performance model in Europe.

Automotive Shredder Residue to Landfill Ratio Based on the Automobile Recycling Law in Japan, Nissan calculated the ratio of landfill to residue after removing ferrous and nonferrous metals from ELVs. Nissan achieved a zero landfill ratio in fiscal 2017 by enhancing recycling capability through the acquisition of additional facilities that comply with the law.



### Material Ratio

The data shown here represents the material usage ratio for a vehicle Nissan produced in fiscal 2017.



### GRI103-3

## Resource Dependency Achievements:Waste

### Thorough Measures for Waste Materials

Nissan actively promotes measures based on the 3R approach in its production processes whenever possible, striving to minimize the waste generated and maximize recycling efficiency by thoroughly sorting waste. Since fiscal 2010 the company in Japan has achieved a 100% recovery rate at all of its production sites, including five manufacturing plants, two operations centers and five affiliates. In Mexico, the first Aguascalientes Plant achieved this in 2011. Nissan is working to bring this rate to an industry-leading level in each global region. Nissan has been making great efforts to reduce the number of wooden pallets and cardboard boxes used in import and export parts shipping. The company began replacing them with units made from steel more than 30 years ago, rolling out plastic substitutes more than 20 years ago. These are foldable and can be returned for reuse. Nissan has also been working with its Alliance partner Renault to expand use of globally standardized, returnable containers. Through design activities carried out concurrently with logistics operations, Nissan has recently considered 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 waste from its production factories by 2% annually in Japan and by 1% annually worldwide compared to business as usual (BAU), i.e., waste levels expected if no special steps had been taken.

### GRI306-2

### Waste

For fiscal 2017, waste generated totaled approximately 153,000 tons, which represented a decrease by 3.9% from fiscal 2016. Waste-reduction activities at the manufacturing plants in Mexico contributed to this. The boundary of the waste data is limited to global production facilities. Waste generated from production sites of Nissan Motor Co., Ltd. and Nissan Motor Kyushu in Japan is 35,765 tons.<sup>\*</sup>

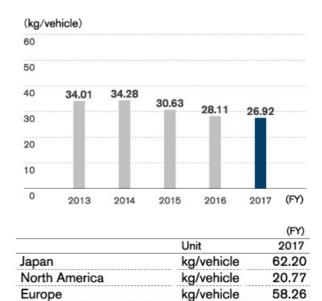
• This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here.

						(FY)
	Unit	2013	2014	2015	2016	2017
Total	ton	172,849	173,513	159,345	158,939	152,674
Japan	ton	61,999	59,808	63,630	61,115	61,327
North America	ton	51,767	58,452	49,129	45,459	35,177
Europe	ton	51,295	45,358	37,204	41,110	45,268
Other	ton	7,788	9,895	9,382	11,255	10,903
Detail						
Waste for disposal	ton	17,903	13,153	11,355	8,707	8,041
Recycled	ton	154,946	160,360	147,990	150,231	144,633

### GRI306-2

Waste per Vehicle Produced Waste per vehicle produced was 26.92 kg, a

4.3% decrease from fiscal 2016.



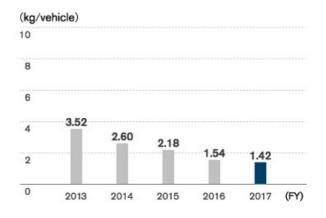
kg/vehicle

4.92

Other

### GRI306-2

Waste for Disposal per Vehicle Produced In fiscal 2017, Nissan reduced the volume of waste for disposal to a total of 1.42 kg per vehicle produced, a 7.9% reduction from fiscal 2016. This was mainly due to wastereduction efforts at the manufacturing plants in the United States.



## WATER SCARCITY

GRI103-1

Policies and Philosophy for Water Resource Management
 Water Resource Management
 Water Resource Achievements

## Policies and Philosophy For Water Resource Management

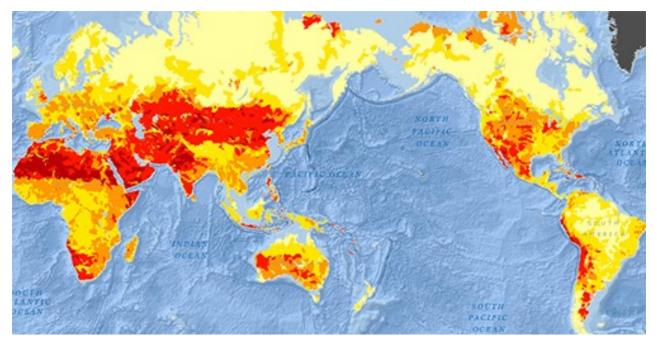
Demand for water is expected to increase globally, driven by rising populations and economic development. With rain patterns also changing due to extreme weather events, the stability of water supplies is likely to become a more pressing social concern with every passing year. Forecasts suggest that the world will face a 40% shortfall in water supplies by 2030, and water crises, extreme weather events and other water-related risks rank highly in the annual Global Risks Report issued by the World Economic Forum. "Clean Water and Sanitation" is one of the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015, and is closely related to several other goals as well, making water an important issue for sustainable development.

Globally, the agricultural sector is said to account for the largest share of water consumption at roughly 70%. The industrial sector comes second, consuming around 20% of water globally, and the municipal sector accounts for the remaining 10%. Automakers are not considered to face particularly high water risks within the industrial sector. However, Nissan believes that reducing dependence on water resources is important to being a sustainable company, and is taking steps to improve water quality management and reduce water usage across its production sites.

## Water Resource Management

Nissan manages wastewater quality to even stricter standards than required by local regulations at every one of its production sites. At sites in Japan, Nissan has further strengthened measures against water pollution by attaching water quality sensors to the discharge points of its wastewater treatment facilities to automatically suspend discharge if water quality problems are detected. Processing recycled water using reverse osmosis (RO) membranes has allowed some sites to achieve zero wastewater discharge. Under NPG2022, Nissan aims to reduce water intake at global production sites by 21% by 2022. The steps Nissan is taking to reduce water usage include sharing best practices among plants, investing in equipment and expanding the role of the Nissan Energy Saving Collaboration (NESCO) team known as "resource NESCO" (rNESCO) that specializes in assessing water usage and waste.

Additionally, since the water resource situation varies considerably from region to region, Nissan assesses water risk using its own methods for each of its production sites throughout the world. At sites where high risk is found, Nissan prioritizes measures to expand dedicated water sources by building reservoirs to collect rainwater, improving wastewater recycling efficiency and reducing external water intake.



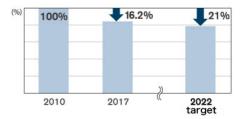
Created based on the World Resources Institute's Aqueduct Water Risk Atlas (aqueduct.wri.org).

## GRI103-2 GRI103-3

## Water Resource Achievements

## Water Use 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. By fiscal 2022, Nissan aims to achieve a 21% reduction from 2010 levels in water usage per vehicle produced. As of fiscal 2017, the company had already reduced such water usage by 16.2% compared to 2010. Water Usage per Vehicle Produced (Global)



To achieve its goal, Nissan built reservoirs for rainwater at the Chennai Plant in India and the second Aguascalientes Plant in Mexico, and installed wastewater recycling equipment at the Chennai Plant, the Huadu Plant in China and the Oppama Plant in Japan. The company is implementing best practices globally to reduce water usage. Its efforts at the Chennai Plant in particular were recognized as an excellent example of water resource management by the Confederation of Indian Industry (CII).

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





## Innovative Car Wash Technique Introduced at Service Centers in India

Since 2014, Nissan Motor India (NMIPL)'s service centers have offered customers car washes that employ an advanced foam wash technique.

A traditional car wash requires about 160 liters of water to wash one car, but NMIPL's new wash service cuts consumption to approximately 90 liters—a 45% reduction in water use. Three years after the introduction of the foam wash technique, the total amount of water saved across all Nissan service centers in India has reached roughly 6,100 kiloliters— equivalent to the daily water consumption of 25,000 Indian households. As well as reducing water consumption, the foam wash service is not only environmentally

friendly due to the non-use of hard chemicals but can also shorten washing time. It can even enhance the gloss of cars by roughly 40%.

## GRI303-1

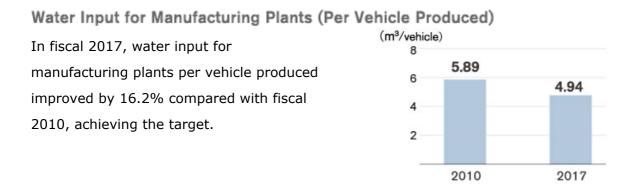
## Water Input for Corporate Activities

In fiscal 2017, water input for corporate activities was 26,197,000 m<sup>3</sup>, a 10% reduction compared with fiscal 2016 level. This is mainly due to water-saving activities in production plants. Water input from production sites was 25,782,499 m<sup>3</sup>.\*

This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see <u>here</u>.

						(FT)
	Unit	2013	2014	2015	2016	2017
Total	1,000m <sup>3</sup>	30,967	29,162	28,570	29,118	26,197
Japan	1,000m <sup>3</sup>	16,818	15,018	14,990	15,563	13,115
North America	1,000m <sup>3</sup>	5,176	5,419	5,427	5,483	4,905
Europe	1,000m <sup>3</sup>	2,404	2,310	2,330	2,299	2,155
Other	1,000m <sup>3</sup>	6,569	6,415	5,823	5,774	6,023

## Water Resource Achievements



## **Cleaner Effluent Through Wastewater Treatment**

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

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

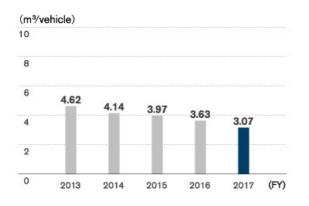
	Unit	2013	2014	2015	2016	2017
Total	1,000m <sup>3</sup>	23,482	20,938	20,680	20,516	17,410
Japan	1,000m <sup>3</sup>	15,114	13,358	12,976	12,681	10,376
North America	1,000m <sup>3</sup>	3,658	3,550	3,916	4,028	3,382
Europe	1,000m <sup>3</sup>	2,054	1,793	1,740	1,767	1,564
Other	1,000m <sup>3</sup>	2,656	2,237	2,048	2,040	2,088

						(FY)
	Unit	2013	2014	2015	2016	2017
Quality						
Chemical oxygen demand (COD) Japan only	kg	32,130	27,883	28,042	29,730	26,451

## GRI306-1

Water Discharge from Corporate Activities (Per Vehicle Produced)

In fiscal 2017, water discharge per vehicle produced was  $3.07 \text{ m}^3$ , which was a 15.4% improvement from fiscal 2010.



Data for the Japan region includes manufacturing of powertrains and other components for overseas assembly use. Since the denominator is vehicles produced in the region, this results in intensity tending to show higher values.

(By Region)		(FY)
	Unit	2017
Japan	m <sup>3</sup> /vehicle	10.52
North America	m <sup>3</sup> /vehicle	2.17
Europe	m <sup>3</sup> /vehicle	2.42
Other	m <sup>3</sup> /vehicle	0.99



## THIRD-PARTY ASSURANCE



## Independent Assurance Report

To the President and CEO, Nissan Motor Co., Ltd.

We were engaged by Nissan Motor Co., Ltd. (the "Company") to undertake a limited assurance engagement of the environmental performance indicators listed in the table below for the period from April 1, 2017 to March 31, 2018 included in its Sustainability Report 2018 (the "Report") for the fiscal year ended March 31, 2018.

- Energy consumption in manufacturing processes
- CO<sub>2</sub> emissions from manufacturing processes
- CO2 emissions from the commuting of employees and the use of sold products
- Water input from manufacturing processes
- · Waste generated from the Company's and Nissan Motor Kyushu Co., Ltd.'s production sites in Japan

#### The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

#### **Our Responsibility**

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting Nissan Motor Kyushu Co., Ltd. selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

#### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

#### **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 regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustamabelity Co., Lid.

KPMG AZSA Sustainability Co., Ltd. Tokyo, Japan July 26, 2018 [Remarks] Basis of calculation for CO<sub>2</sub> emissions, waste generated and water input subject to third-party assurance

- CO<sub>2</sub> emissions from production sites: Calculated based on Nissan internal standards. The energy use data of each site is based on invoices from suppliers, which are multiplied by a CO<sub>2</sub> emissions coefficient publicly available for each production site.
- CO<sub>2</sub> emissions resulting from employees' commute: Calculated based on the GHG Protocol Scope 3 Standard. Specifically, the annual CO<sub>2</sub> emissions resulting from each employee's commute are calculated using a standard unit of measurement announced by Japan's Ministry of Economy, Trade and Industry, Ministry of the Environment, and Ministry of Land, Infrastructure, Transport and Tourism. This figure is calculated on the basis that employees working at Global Headquarters commute by train and other employees use cars that are average vehicles designated by Nissan. 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 the regional estimated average lifecycle mileage and multiplied by fiscal 2016 sales volumes. The average CO<sub>2</sub> emissions for the use phase (including direct emissions only per unit are calculated for each of our main regions (Japan, U.S., EU and China and extrapolated from average emissions of these markets for other markets. The Sustainable Mobility Project (SMP model issued by the International Energy Agency was used to determine estimated average lifecycle mileages.
- Scope 3 emissions figures are estimates subject to varying inherent uncertainties.
- Waste generated from production sites of Nissan Motor Co. Ltd. and Nissan Motor Kyushu Co., Ltd. in Japan:

Calculated based on Nissan internal standards. The discharged waste is based on data from truck scales at the sites or data reported by disposal contractors. All discharged waste within the sites concerned is targeted.

However, waste generated without fixed periodicity, waste generated in canteens, waste from permanently stationed companies at the sites, waste generated by external vendors and waste from construction are excluded. In addition, materials recycled in-house, used in reproduction (reused by Nissan) or recycled (as salable, valuable materials) are not categorized as generated waste.

Water input from production sites: Calculated based on Nissan internal standards. Water input is the water withdrawal amount according to billing meters or company meters installed on site. The water withdrawal amount includes drinking water (tap water), industrial-use water, underground water (spring/well water) and rainwater or the like.

## STRENGTHENING OUR BUSINESS FOUNDATION



O Governance O Lifecycle Assessment to Reduce Environmental Impact

## Governance

In order to carry out comprehensive environmental management as a global company while responding to a diversifying range of environmental challenges, Nissan has established an organizational approach linking its various functions and regions. The Global Environmental Management Committee (G-EMC), co-chaired by a board member, determines overall policies and the content of reports put before the Board of Directors. Its meetings are attended by corporate officers chosen based on the issues to be discussed. Executives also clarify the risks and opportunities before the company and direct the pertinent divisions to manage and operate their environmental programs efficiently. In addition, environmental risks are regularly reported to the CEO-chaired Internal Control Committee, strengthening corporate governance.

Corporations today are expected to disclose on environmental initiatives and related decision-making in a reliable and transparent manner. Nissan will continue to actively communicate with a broad range of stakeholders through its Sustainability Report and by answering inquiries from various environmental rating agencies.

#### Enhancing Environmental Management Based on ISO 14001

As of January 2011, the Nissan Global Headquarters and all other main Nissan facilities in Japan, including those for R&D, production and logistics, along with all product development processes, have acquired ISO 14001 certification for environmental management systems. The company has appointed an environmental management officer to oversee Nissan's environmental activities. Through steady application of the PDCA (plan, do, check, act) cycle, the company is improving its environmental performance. The coordinated goals set by the environmental management officer for the entire company are cascaded down to the employees working in all facilities through local offices. Nissan's ISO secretariat oversees companywide efforts, while the local offices in Japan are responsible for activities at each facility and division and for coordinating the proposals from employees. The secretariat and local offices engage in discussions at least once a month to confirm the progress made toward established goals, to share best practices, to improve management systems, to develop plans for the next fiscal year and to communicate requests from local facilities and divisions. The items discussed are reported to the environmental management officer twice a year (once during the management review conference) so that the company can decide on needed improvements.

To confirm management is functioning properly, Nissan annually undergoes audits by third-party organizations and carries out its own internal audits of its environmental systems and environmental performance to strengthen the company's measures, based on the PDCA cycle. Nissan has completed adapting its systems in line with the version of ISO 14001 updated in fiscal 2015.

The company has also earned ISO 14001 certification at its main production plants outside Japan. Nissan's policy is to extend environmental management systems to all regions of new expansion in line with the same standard.

#### Nissan's Voluntary Operational Standards

Stricter controls on environment-impacting substances are being implemented in countries around the world. Examples include the European ELV Directive, the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation, which went into force in June 2007, and Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture. 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 planned schedule for their reduction and advancing the use of alternative substances. In 2005, the company drew up policies regarding the use of substances scientifically recognized as being hazardous or carrying high hazard risks, as well as those identified by NGOs as dangerous. In 2007, these policies, which restrict environment-impacting substances even more than the domestic laws of the countries where it operates, were rolled out globally.

Based on these policies, the company has developed the Nissan Engineering Standard (NES) for the "Restricted Use of Substances." The standards identify the chemical substances whose use is either prohibited or controlled. Nissan applies them in selecting all materials, components and parts used in its vehicles from initial development onward. For example, four heavy metal compounds (mercury, lead, cadmium and hexavalent chromium) and the polybrominated diphenyl ether (PBDE) flame retardant have been either prohibited or restricted in new type models (excluding OEM vehicles) launched globally since July 2007. To control VOC use in car interiors, Nissan has adopted the voluntary targets of the Japan Automobile Manufacturers Association as its own standards for global operations and is reviewing and reducing their use in materials and adhesives for seats, door trim, floor carpet and other parts. Every year, Nissan revises the "Restricted Use of Substances" NES to reflect changes in international laws and regulations and to add new substances covered by its voluntary standards. Under the RenaultNissan Alliance, for the 2017 revision it implemented shared standards based on a reassessment of select criteria for hazards and risks that go beyond the level of compliance, strengthening Alliance activities.

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

GRI306-3 GRI307-1

### Fines from Environmental Laws

During the reporting year, there were no violations of environmental laws or regulations which resulted in penalties from the government or environmental accidents for which Nissan received guidance.

### Raising Employee Awareness

Nissan's environmental activities are enabled by the knowledge, awareness and competency of its employees. Based on ISO 14001 activities, the company will conduct employee education rooted in NGP2022 regarding reduction of CO<sub>2</sub> emissions, energy, water consumption and waste. In addition, education regarding environmental accident prevention, including management of hazardous materials, is provided every year to all employees including those from affiliated companies working in Nissan production facilities. Training programs with quantitative evaluation are deployed to improve the skills and knowledge of each employee on how to reduce environmental impact in their activities. The content of these training programs is updated once a year.

In Japan, Nissan implements its own curriculum for educating new employees during orientation as well as middle managers during seminars to deepen their understanding of NGP2022 and environmental issues surrounding the auto industry. The company also holds "town hall" meetings that bring together executives and employees. Employees can stay up to date on Nissan's latest environmental initiatives through features in the intranet, internal newsletters, and in-house video broadcasts. In addition, all employees 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 opportunities to encourage 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 the company's midterm business plan. The ideas proposed by employees go to managers and QC circle secretariats for assessment of their potential contribution to environmental improvement, among other factors, after which Nissan may implement those with the highest potential. The knowledge and skills of the frontline employees on CO<sub>2</sub> emission reduction, energy management, water conservation and waste and landfill reduction have been compiled in a best-practices manual and shared among global facilities. Nissan holds contests in some facilities during officially designated months in Japan to keep employees motivated to participate in environmental activities. These include the Energy Use Reduction Idea Contest in February (energy-efficiency month), the Water Usage Reduction Idea Contest in June (environment month) and the Waste Reduction Idea Contest in October (3R promotion month).

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

## Lifecycle Assessment to Reduce Environmental Impact

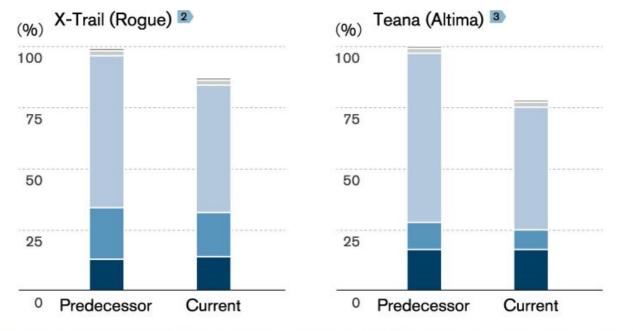
Nissan uses the LCA method to quantitatively evaluate and comprehensively assess environmental impact not just while vehicles are in use but at all stages of their lifecycle, from resource extraction, manufacturing and transport to disposal. Nissan is working to develop more environmentally friendly vehicles by investigating ways to reduce environmental impact during the period of NGP2022, and by carrying out LCAs for new technologies. The company's LCA methodology was certified by the Japan Environmental Management Association for Industry in 2010 and TÜV Rheinland in Germany in December 2013. The latter certification is based on ISO 14040/14044 standards and guarantees the soundness of the environmental impact calculations in Nissan's product LCAs.



Global Top Selling Model's Lifecycle Improvements

Nissan has been working to enhance the application of the LCA method and to extend quantitative understanding of the environmental impact of its products, especially the most impactful top-selling models worldwide. LCA has been applied to over 90% of these models.

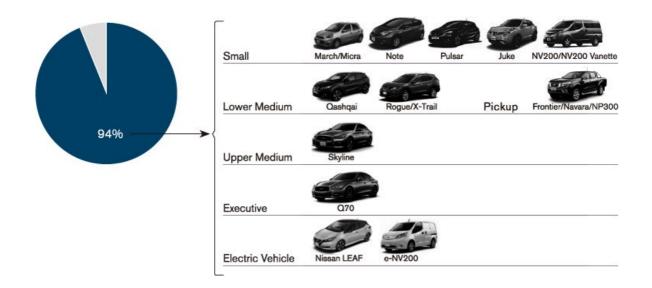
With the X-Trail and Teana, for example,  $CO_2$  emissions have been lowered by 13%–23% thanks to internal combustion engine efficiency improvements and vehicle weight reduction.



Production & logistics Fuel & electricity production Usage Maintenance ELV

Production in EU, 150,000 km driving in EU

Production in U.S., 120,000 mile driving in U.S.

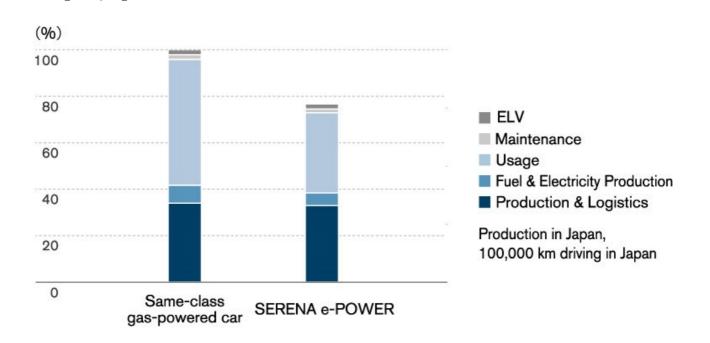


\* CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.

## CO2 Equivalent Emissions\* over Vehicle Lifecycle for Serena e-POWER

Nissan introduced its new e-POWER powertrain in 2016, marking another significant milestone in the electrification strategy with lifecycle emission improvements.

Compared to their gasoline-powered counterpart models, the Note e-POWER and Serena e-POWER emit 27% less  $CO_2$ . Electrified e-POWER vehicles use a system which is supported by a gasoline engine as a power generation source. Since the engine only operates under certain circumstances, it is possible to achieve lower exhaust emissions and better fuel efficiency for driving. Also, since an e-POWER vehicle only requires a small battery (unlike a full EV), emissions from the manufacture of dedicated EV parts such as batteries can be kept at a level only slightly above that for parts for conventional vehicles. There is potential for further reduction in  $CO_2$  emissions through weight reduction and the optimal energy management of e-POWER vehicles.

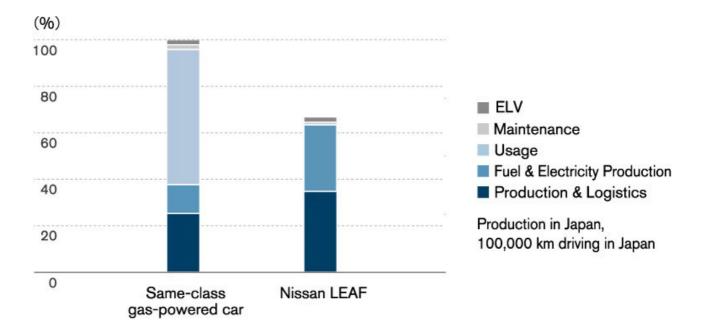


CO2 Equivalent Emissions\* over Vehicle Lifecycle for the New Nissan LEAF

Compared to conventional vehicles of the same class in Japan, the Nissan LEAF results in around 32% less CO<sub>2</sub> emissions during its lifecycle.

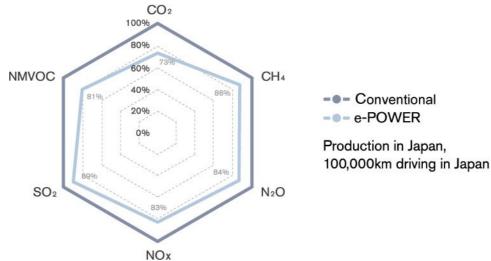
Nissan is making efforts to reduce  $CO_2$  emissions during EV production by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials. Meanwhile, the company also continues to pursue technology development on electric powertrains, power savings on ancillary devices and the use of renewable energy to reduce  $CO_2$  emissions over the entire electrified vehicles' lifecycle.

Also, at the end-of-life stage, used batteries can be utilized for energy storage in various ways and contribute to  $CO_2$  emission reduction in society. \*  $CO_2$ ,  $CH_4$ ,  $N_2O$ , etc.



Lifecycle Improvements beyond Climate Change

Amid growing societal concerns over air quality, ocean acidification and eutrophication, in addition to greenhouse gases, Nissan is expanding the scope of LCA studies to include other chemical substances. Company calculations show that, compared to its conventional engine counterpart, the current Serena e-POWER has holistic environmental improvements over the lifecycle with approximately 11%–27% emission reduction for all targeted chemical substances. It creates holistic environmental benefits over its lifecycle.



Emissions Improvement in the New Serena e-POWER over Vehicle Lifecycle

## 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. The company then identifies stakeholders\* at each stage, from the extraction of resources through to manufacturing, logistics, use and disposal of end-of-life vehicles. In this way, Nissan gains an understanding of stakeholder views and the diverse needs of society. As an example, members of Nissan's Board of Directors hold meetings with the participation of experts who lead the environmental field in academia and industry, as well as leading businesspeople from various sectors. The outputs of these discussions are used in the development of Nissan's environmental strategy.

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

### Communication and Assessment of Environment-Related Activities

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

Nissan was selected from among more than 6,000 global corporations to receive Leadership-level ranking for the fourth straight year in the Global Climate Change Report 2017 issued by CDP; an international nonprofit organization.

Also, in the 2017 Global Water Report, Nissan was highly praised for its NGP2016 initiatives to reduce water usage and manage its supply chain, and was added to the A-List, the highest level among participating companies.

In Japan, the company finished eighth in the manufacturing sector in the Nikkei Environmental Management Survey, conducted by Nikkei Inc. for the 21st time last year. This survey examines and evaluates how Japanese corporations balance business concerns with environmental policies.

\* These standards, published by the NGO Global Reporting Initiative, represent global best practice for reporting on a range of economic, environmental and social impacts.

### GRI308-1 GRI308-2

#### Working with Suppliers

As part of NGP2022, Nissan is working to improve suppliers' environmental performance via the three initiatives below. Firstly, Nissan encourages all its global suppliers to manage parts and materials with a shared environmental philosophy from an awareness of the Nissan Green Purchasing Guidelines. These guidelines are based on The Renault-Nissan Purchasing Way and the Renault-Nissan Supplier CSR Guidelines, and provide more detailed information regarding environmental matters.

Nissan also participates in the supply-chain program of CDP, through which it requests information on climate change and water from suppliers, and conducts holistic performance reviews. During fiscal 2017, Nissan asked its large-contract suppliers to take part in the supply-chain program, and 83% responded to the CDP carbon program, which collects information on climate change, and 75% to the CDP water program, which collects information on water. Based on the results from these surveys, Nissan engaged with a number of suppliers in order to incentivize work on the improvement of their environmental initiatives.

Lastly, Nissan is promoting THANKS Activities, a joint improvement program that emphasizes trust and cooperation with suppliers. Regarding energy use (electricity and gas) and  $CO_2$  emission reduction in particular, the company is cooperating with its main suppliers as part of the energy-efficient THANKS Activities initiative, and centering these activities on internal production facilities.

### 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 NGP2022. The meetings lead to a deeper shared understanding of the details of NGP2022 and the initiatives undertaken by each company.

#### Working with Dealerships

Nissan's dealerships in Japan have introduced an original approach to environmental management based on ISO 14001 certification called the Nissan Green Shop certification system. This system is managed through internal audits conducted by the dealerships every six months, in addition to regular annual reviews and certification renewal audits carried out every three years by Nissan Motor Co., Ltd. As of the end of March 2018, the system has certified 2,700 outlets of 156 dealers, including parts dealers.

### Working with Future Generations

Today's youths are the future leaders of our society. Nissan is working to share information on environmental issues with the younger generation, and to raise awareness among tomorrow's leaders. Nissan has been conducting environmental programs for students in school visits in Japan since 2008, with more than 50,000 participants in total (as of March 2017). In NGP2022, we will further expand the program in Japan, as well as in other countries all around the world.

### Key Activities in NGP2022

Global expansion of youth education programs, such as Nissan Waku-Waku Eco School, an interactive and fun program delivered by Nissan employees to schoolchildren on:

- Knowledge of global environmental issues
- Nissan's environmental initiatives, such as the Nissan LEAF electric vehicle and green technology

Through environmental education, the program encourages participants to adopt eco-friendly initiatives in their daily lives.



## Working with NGOs

The Global Risks Report 2017 published by the World Economic Forum notes that climate change and water crises are consistently featured among the top-ranked global risks in the past seven editions of the report. Nissan fully understands the drive for all companies to contribute in these areas. We believe that working alone via our operations is not sufficient; hence we collaborate with NGOs, targeting climate-change- and water-related community projects to align with our environmental ambition. Our Corporate Philanthropy Goal is to create a cleaner, safer and more inclusive society. In NGP2022, we collaborate globally with nongovernmental organizations, targeting major areas such as climate change and water scarcity, and will contribute to supporting local communities through our projects.

### Key Activities in NGP2022

Collaboration with WWF Japan on climate change mitigation

• Support and financially contribute to World Wide Fund for Nature (WWF) Japan's climate change mitigation project

• Continue participation in WWF's worldwide Earth Hour environmental enlightenment campaign for greenhouse gas emission reduction, Collaboration with Conservation International on water supply catchment protection

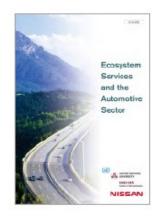
• Support and financially contribute in watershed reforestation projects, beginning in Indonesia

• Create jobs and build capacity for local communities through their involvement in our conservation projects

GRI304-1 GRI304-2 GRI304-3 GRI304-4

Priority Issues for Automobile Manufacturers Regarding the Protection of Air, Water, Soil and Biodiversity

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



to balance environmental preservation and economic progress as they pursue their business activities. Using methods identified in the Corporate Ecosystem Services Review,\*1 Nissan has evaluated its value chain from the extraction of material resources to vehicle production and operation. Based on the results, the company has identified its three priority areas as an automobile manufacturer: energy sourcing, mineral material sourcing and water usage. Nissan has followed up by positioning the business risks and opportunities and re-evaluating and further developing its traditional environmental initiatives. In 2010, Nissan published "Ecosystem Services and the Automotive Sector,"\*2 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.

\*1 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.

• \*2 Click <u>here</u> for more information on "Ecosystem Services and the Automotive Sector."

## **Environmental Conservation Cost**

Profit

All environmental costs are based on the guidelines provided by Japan's Ministry of the Environment, and are calculated for activities in Japan only.

					(FY)
	Unit	20	015	2	016
		Investment	Cost	Investment	Cos
Total	mil ¥	3,491	172,428	3,866	176,806
Business area	mil ¥	71	1,519	92	1,510
Upstream/downstream	mil ¥	0	513	0	522
Management	mil ¥	0	2,297	0	3,849
R&D	mil ¥	3,420	167,800	3,774	170,600
Social activities	mil ¥	0	296	0	316
Damage repairs	mil ¥	0	3	0	10
					(FY)
	Unit		2015		2016
Total	mil ¥		5,599		5,703
Cost reduction	mil ¥		2,289		1,264

3,310

4,439

mil ¥

# SOCIAL

- SOCIAL POLICIES AND PHILOSOPHY
- **O HUMAN RIGHTS**
- O DIVERSITY AND INCLUSION
- O TRAFFIC SAFETY
- PRODUCT SAFETY AND QUALITY
- SUPPLY CHAIN MANAGEMENT
- HUMAN RESOURCE DEVELOPMENT
- LABOR PRACTICES
  - > RESPECTING THE RIGHTS OF WORKERS
  - > DIALOGUE WITH EMPLOYEES
- EMPLOYEES' HEALTH AND SAFETY
- O COMMUNITY ENGAGEMENT

### GRI102-15

## SOCIAL POLICIES AND PHILOSOPHY

Nissan's business activities are supported by various stakeholders. As well as respecting the rights of all stakeholders, as a global company Nissan conducts its business activities with a constant awareness of society's needs and social responsibility in order to contribute to the sustainable development of society.

Regarding the Social concept under Nissan Sustainability 2022, the company is promoting initiatives in six areas: traffic safety, diversity and inclusion, quality, supply chain, employees, and community engagement.

## Traffic Safety

Nissan is promoting development and implementation of autonomous driving technology and other traffic safety technologies to achieve its ultimate goal of virtually zero fatalities involving Nissan vehicles.

#### Diversity and Inclusion

Nissan will proactively hire more diverse talent with different backgrounds to make gender and national diversity a corporate strength. It also aims to to be a truly inclusive company in which employees can demonstrate their potential to the fullest.

#### Quality

Quality is fundamental to Nissan's activities. At all levels of the organization, Nissan will listen closely to the voice of the customer and establish awareness of the importance of quality improvement.

### Supply Chain

Nissan is strengthening its sustainability initiatives throughout its supply chain.

#### Employees

Nissan will expand opportunities for its employees to learn so that they can achieve their maximum potential. Nissan aims to make continuous learning and talent development part of its corporate culture, and to create a dynamic work environment where the health and safety of staff is a top priority.

## Community Engagement

Local communities are important stakeholders in Nissan's business activities. The company is working to contribute to local communities around the world in three strategic areas: "zero emission", "zero fatality" and "zero inequality".

For this Sustainability Report, activities in six areas were selected and examined from the perspectives of the potential business impacts and level of stakeholder concern.

## Report Themes and the Six Areas

REPORT THEMES	SIX AREAS	
HUMAN RIGHTS	DIVERSITY AND INCLUSION	
DIVERSITY AND INCLUSION	DIVERSITY AND INCLUSION	
TRAFFIC SAFETY	TRAFFIC SAFETY	
PRODUCT SAFETY AND QUALITY	QUALITY	
SUPPLY CHAIN MANAGEMENT	SUPPLY CHAIN	
HUMAN RESOURCE	EMPLOYEES	
LABOR PRACTICES		
EMPLOYEES' HEALTH AND SAFETY		
COMMUNITY ENGAGEMENT	COMMUNITY ENGAGEMENT	

# HUMAN RIGHTS

Human Rights Policies and Philosophy Human Rights Management

Human Rights Initiatives

## GRI103-1

## Human Rights Policies and Philosophy

The value chains of global corporations are expanding, and the international community is ever more concerned about respect for human rights and the ways in which doing business affect those human rights. As a leading automobile company, Nissan considers the strict adherence to corporate rules and applicable laws and practices in all countries and territories where it operates to be a fundamental principle underpinning its business activity. Additionally, Nissan is committed to delivering engaging, valuable and sustainable mobility to all and acknowledges that, for this to be achieved, it is essential that the human rights of all stakeholders are respected and that employees uphold the highest ethical standards. Nissan does not discriminate on the basis of race, nationality, gender, religion, disability, age, place of origin, gender identity and sexual orientation or any other reason. The company also works to rectify and eradicate working practices that infringe human rights, such as forced labor and child labor.

## Human Rights Policy Statement

As a signatory of the United Nations Global Compact, Nissan's respect for human rights is informed by the Universal Declaration of Human Rights and the International Labor Organization's Declaration on Fundamental Principles and Rights at Work. Nissan recognizes the UN Guiding Principles on Business and Human Rights (UNGPs) as the standard reference and has established the Nissan Human Rights Policy Statement\* to proactively avoid the risk of adverse human rights impacts. Nissans makes its commitment to protect human rights clear to all stakeholders and implements initiatives based on this policy statement.

• \* Click <u>here</u> to download the Nissan Human Rights Policy Statement.

GRI103-2 GRI408-1

GRI409-1

GRI412-1

## Human Rights Management

The Nissan Human Rights Policy Statement is to be respected by Nissan management and employees. As the foundation of Nissan's ethical expectations clarified in the Global Code of Conduct for Nissan Group,<sup>\*1</sup> all management and employees recognize the importance of applying the statement beyond Nissan's own operations. At every level of its global supply chain, Nissan's goal is to conduct ethical, social and environmentally conscious business practices. It is working together with its business partners, including suppliers and contractors, to achieve this goal.

Since 2006 Nissan has shared common values and processes with a worldwide network of suppliers via The Renault-Nissan Purchasing Way.<sup>\*2</sup> Common values regarding human rights and labor are also shared via the Renault-Nissan CSR Guidelines for Suppliers,<sup>\*3</sup> in which Nissan details its expectations of suppliers regarding respect for human rights and prohibition of child labor and forced labor and requests their implementation. In addition, Nissan requires businesses that Nissan deals with to take the initiative regarding the responsible procurement of minerals and to carry out due diligence on conflict minerals.<sup>\*4</sup>

Nissan is also strengthening communication with its sales companies and promoting

- consistent sustainability management, including on human rights issues.
- ●\*1 Click <u>here</u> to download the Global Code of Conduct for Nissan Group.
- ●\*2 Click <u>here</u> to download The Renault-Nissan Purchasing Way.
- Suppliers.
  Suppliers.
- \*4 Click <u>here</u> for more information on Action Against Conflict Minerals.

GRI103-3 GRI406-1

GRI411-1

GRI412-2

GRI407-1

## Human Rights Initiatives

Nissan recognizes the need to take a comprehensive approach to managing human rights, starting with the identification of any actual or potential adverse impact on human rights that it might have inadvertently caused or contributed to. In order to avoid adverse human rights impacts, Nissan acknowledges the importance of monitoring, assessing and taking action by developing appropriate response strategies.

Nissan also works to build awareness of human rights among employees. For example, a total of around 138 people have taken part in its annual LGBT seminars that have been taking place since fiscal 2014, and since fiscal 2016 all managers have been required to take an e-learning program through which they acquire fundamental knowledge about LGBT issues. From the current fiscal year, all new staff will take the program as part of their obligatory compliance education. There are also proactive initiatives to support LGBT staff.\* In addition, as described in the Global Code of Conduct for Nissan Group, employees can submit inquiries related to human rights issues via a global reporting system. Nissan is committed to investigating, addressing and responding to any concerns raised. Nissan is also

committed to protecting those who make sincere inquiries related to the principles outlined in the statement from any form of retaliation.

• Click <u>here</u> for more information on initiatives to support LGBT staff.

# DIVERSITY AND INCLUSION

- Diversity and Inclusion Policies and Philosophy
- Diversity and Inclusion Management Diversity and Inclusion Initiatives

GRI103-1 GRI103-2 GRI406-1

## **Diversity and Inclusion Policies and Philosophy**

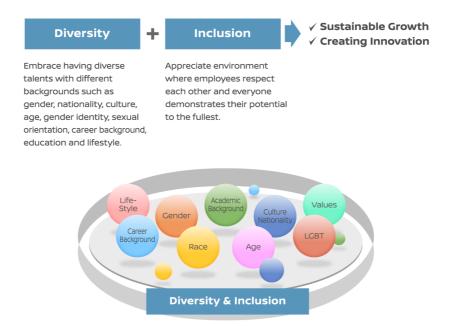
The needs of customers are becoming increasingly diverse. To meet these needs Nissan employees from different backgrounds must work together. Employees are the driving force for the sustainable growth of Nissan, and this diverse body of employees is a valuable resource for the company. Nissan places great importance on establishing a workplace where employees can demonstrate their potentials to the fullest, and which is truly inclusive. That is why one of Nissan's corporate strategies is to respect and promote diversity and inclusion.

## Respect for Human Rights and Equal Opportunity

Nissan has established the Global Code of Conduct for Nissan Group, which describes how employees should act and applies to all Nissan Group companies worldwide.

At Nissan, all employees respect one another's human rights, and discrimination or bullying on the grounds of race, nationality, gender, religion, disability, age, place of origin, gender identity, sexual orientation or other reasons is forbidden. There are rules in place to prevent any passive acceptance of an environment in which such discrimination occurs. At the same time, Nissan respects the diversity of its employees, works to maximize the performance of each individual and actively strives to create an environment in which teams can come together and work toward ambitious goals.

## Diversity and Inclusion as Strategy



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

Nissan believes that diversity and inclusion are a source of competitiveness for the company. By having employees from a range of backgrounds work together while respecting one another's different values, new concepts and ways of thinking are born and even greater value and creative solutions are produced, leading to even better business results. In order to meet the diverse needs of customers around the world and to provide the revolutionary products and services that come about when each employee is highly motivated, Nissan has made diversity and inclusion part of its corporate strategy and is promoting them in all workplaces.



## GRI103-2

## Diversity and Inclusion Management

In order to promote diversity and inclusion across Nissan's global operations, policies are set by a committee of executives representing company divisions. Nissan then puts in place local initiatives based on the specialist knowledge needed for their implementation. Nissan aims to be a truly inclusive company with a diverse workforce, in which individual employees can demonstrate their potential to the fullest. It promotes diversity and inclusion based on four approaches: "Developing leaders with skills to manage diverse organizations," "Enabling diverse human resources," "Embedding culture of respect for diversity and inclusion" and "Promoting inclusive ways of workstyle."



## Diversity and Inclusion: Decision-making and Action-driving Bodies

Nissan has set up the Global Diversity Steering Committee (Global DSC), which consists of executives from its different divisions and makes decisions on global diversity and inclusion policies and initiatives. The implementation of these in various geographical areas is spearheaded by Regional Diversity Steering Committees (Regional DSCs). In Japan, Nissan has set up the Diversity Development Office, which helps put diversity and inclusion policies into practice. In North America, the Americas Diversity Office has been established. In other regions, the implementation of diversity policies is handled by local human resource departments and other bodies.



Issues	Approaches		
Nurturing of leaders with skills to manage diverse organizations	· Measures to improve management skills		
Participation of a diverse human resources	<ul> <li>Measures to develop human resources, career support</li> <li>Stronger recruitment*</li> <li>Targets for 16% female managers globally, and 13% in Japan by 2023.</li> </ul>		
Entrenchment of a culture in which diversity and inclusion are respected	Measures to promote understanding of diversity among all employees		
Realization of inclusive work practices	Work-life balance support measures     Creation of structures to realize flexible working		

## Diversity and Inclusion Promotion: Issues and Approaches

## Work-style Revolution "Happy 8"

Nissan is implementing a series of workstyle reforms that provide a crucial foundation for supporting diversity and inclusion, allowing employees with a range of values and life needs to perform at their best.

Nissan has been striving to make work styles more flexible. In the 1990s the company began encouraging employees to take their allotted paid leaves and implemented a "super-flextime" system with no core time when employees must be at their workplace.

In 2015 Nissan introduced the Happy 8 program, a work reform emphasizing the ideal of an eight-hour work day. By communicating this ideal to employees, Happy 8 aims to increase individual and organizational productivity while also improving work life, private life, and health. As part of welcoming more flexible workstyle in February 2017 Nissan also began promoting its Happy Friday program, encouraging employees to leave office at 3 p.m. on the last Friday of each month. Under the slogan "Eight productive hours! Richer lives, better health, Happy 8," Nissan will continue striving for more flexible and attractive work styles.

## **Diversity and Inclusion Initiatives**

## Enabling Diverse Human Resources

## Female Talent Development: Initiatives and Achievements

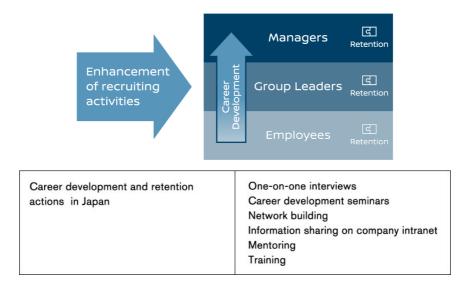
Enablement of women, particularly in management positions, is essential to providing diverse values to customers. In order to increase female representation through all management levels, Nissan provides trainings to ensure that top candidates will be ready to take on greater responsibility. Support is provided for women's career development in every region where the company operates.

Activities are organized that are geared toward female employees, including skilldevelopment training courses and networking events; examples of career development initiatives include mentoring programs and roundtables led by Nissan executives. Activities focusing on young female engineers are conducted as well. As a result of these initiatives, the percentage of women among Nissan managers globally has increased from 7% in 2008 to 14% in April 2018. Additionally, increasing numbers of female employees have ambitions to work overseas, and women are active throughout Nissan's global operations.

The Renault-Nissan-Mitsubishi Alliance sponsors the Women's Forum for the Economy and Society, which is an international platform to promote the advancement of women in the workplace. The annual global meeting in France gives women an opportunity to build networks and expand horizons through dialogue with counterparts in diverse industries and by participating in workshops. Employees from Nissan Group companies around the globe are selected to participate in the meeting each year; 10 took part in 2017.

In Japan, Nissan provides personalized support for female employees through individual counseling sessions with career advisors. Female employees receive tailored support via career development seminars and meetings with career advisors. They are also actively encouraged to network with other professional women outside of the company and with women who have risen into management roles in Nissan.

Nissan has also put in place a mentoring program as part of its personal support initiatives. Younger employees receive support for their personal growth through two-way dialogue with highly knowledgeable and experienced senior employees, as well as help in dealing with the issues they encounter during their career development and in solving worries and issues in the workplace.



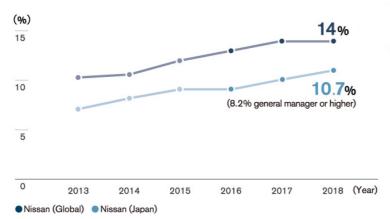
Thanks to these various initiatives, women now comprise 10.7% of managers in Japan (as of April 2018). This compares favorably to the average of 3.5% for Japanese manufacturers with 1,000 or more employees (according to 2017 statistics from Japan's Ministry of Health, Labor and Welfare). Female managers also work in all Nissan divisions, including development and manufacturing, and are involved in all operational processes. Furthermore, as of April 2018, a total of 8.2% of general manager or higher positions are filled by women, four times larger than the 2008 level of 2.0%. Also, in June 2018 the international race driver Keiko Ihara became Nissan's first female outside director.

Rather than simply increasing the number of female managers, Nissan creates an environment in which women can participate in all business processes, from new model development to sales, including those working at affiliate and sales companies.

In the car development stage, models like the Nissan Serena minivan released in Japan in August 2016 reflect women's requirements. For example, designers and engineers adopted recommendations for a capless fuel tank, allowing drivers to refuel the vehicle without dirtying their hands, and dual back doors that require minimal force to open and allow cargo to be loaded even in confined spaces.

Nissan is also promoting human resource and career development initiatives for women at its manufacturing sites. In October 2017 the Nissan Group's first female plant manager took up her role at the Oppama Plant in Yokosuka, Kanagawa Prefecture.

Nissan sales staff must respond to the needs and questions of men and women customers alike. The Nissan Ladies First Project was launched in fiscal 2013 to introduce shop designs and services with female customers in mind. A pivotal role in the project is played by female sales staff known as CAs, or car-life advisors. Both male and female customers report high satisfaction with Nissan's female CAs, and the company offers ongoing training, such as workshops for young female CAs, in addition to improving the work environment, to give female employees more room to succeed. As of March 2018, 1,222 female CAs were active across Japan, accounting for 10.2% of the national total, compared to 9.6% in March 2017. A Ladies First Shop certification program was also launched in 2013 to enhance the satisfaction of female customers with both showroom and after-sales service experiences. Some 302 shops nationwide (as of March 2018) offer special services for female customers. Nissan employs women as technical advisors (TAs) to help facilitate the vehicle maintenance process for customers. Nissan has received a positive response to the female TAs from customers, thereby contributing to the enhancement of customer satisfaction of sales companies. Training courses and informal gatherings for female TAs are held to promote networking and skills development.



**Ratio of Women in Management Positions** 

## Inter-cultural Cooperation

A vital part of Nissan'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. Around half of Nissan's corporate officers are non-Japanese, and Nissan's top decision makers include individuals of many different nationalities. To more efficiently promote Nissan's partnership with Daimler AG and AVTOVAZ, efforts are being made to expand the share of managerial staff in Europe who speak German or Russian.

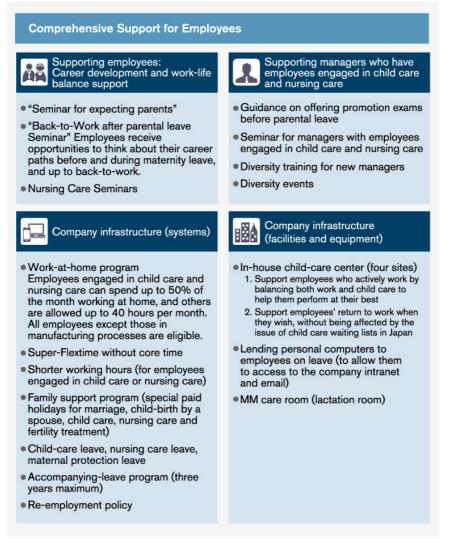
## Promoting Inclusive Workstyles

Nissan strives to create a work environment where every member of a diverse workforce can demonstrate its potential to the fullest. For example, a system in which employees can freely choose to spend up to 40 hours a month working from home was introduced so that staff can work flexibly according to their individual needs. Around 6,300 people took advantage of this system in fiscal 2017.

Also, in order to make it easier for staff in different regions to work together, in 2017 Nissan established basic rules for the timing of meetings between sites in different regions. Although in the past global meetings have taken place during the middle of the night in some regions, guidelines have now been set in which all participants can join meetings between the local hours of 7 a.m. and 8 p.m. By combining this with home-working, Nissan can provide an attractive work environment in all regions.

Japan's low birthrate and aging population mean that it is important to provide a work environment that supports employees raising children or giving nursing care to the elderly. Nissan is building an environment to help employees who balance work with child care through both facilities, such as in-house child-care centers, and initiatives, such as seminars and organizational support. In fiscal 2017 Nissan's first plant child-care center – March Land Oppama–was opened at the Oppama Plant. The child-care's opening times are set to fit the plant's shift schedule, thereby helping female employees to continue their work at the plant. A group called "Escargot" has also been set up by working mothers themselves as a forum to exchange information. The number of employees balancing work with the nursing care to the elderly is expected to increase, and in Japan Nissan has held seminars since fiscal 2015 where employees can learn the basics of nursing care and explore how company policies and local services can help them maintain the work-care balance. In fiscal 2017 the company launched an external support services to support employees who face difficulties in nursing care.

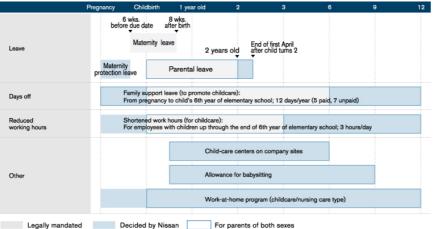
#### **Creating an Environment Conducive to Work-Life Balance**



				Expansion to plants
	March Land Atsugi	March Land Atsugi Axt	March Land Minatomirai	March Land Oppama
	Nissan Technical Center (Atsugi)	Nissan Global Information System Center (Atsugi)	Nissan Global Headquarters (Yokohama)	Nissan Oppama Plant (Yokosuka)
Capacity *	42	10	15	10
Hours	7:30 a.m10:00 p.m.	8:30 a.m6:30 p.m.	8:00 a.m8:00 p.m.	5:00 a.m7:30 p.m.
Established	April 2005	October 2012	January 2013	April 2017
				<ul> <li>Capacity determined based on facility area.</li> </ul>

#### **In-house Childcare Centers for Nissan Employees**

\* Capacity determined based on facility area.



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

To create an attractive working environment for all, it is necessary to ensure a feeling of belonging while welcoming employees with all sorts of differences, not just of gender and nationality but also sexual orientation, gender identity, disability, age and career history. To enable members of the LGBT community and other employees with diverse sexual orientations and gender identities to perform their jobs without experiencing discrimination in the workplace, Nissan has been working to support and promote understanding through such initiatives as annual LGBT seminars held since 2014. In May 2017 Nissan took part in the Tokyo Rainbow Pride 2017, Japan's largest LGBT event, in cooperation with the British Embassy in Japan. Also, in fiscal 2016 a self-initiated employee network was launched by members of the LGBT community within the company and their allies (those supportive of LGBT). In recognition of these initiatives, the private organization work with Pride awarded Nissan its most prestigious Gold "PRIDE Index" to recognize corporate initiatives to support LGBT employees, a first for a Japanese automobile company.

Nissan also provides a space for older employees and those with disabilities to fully participate. Necessary training is provided for those who have built up their career at other companies so that they can quickly perform to the best of their ability at Nissan. In this way, for Nissan to create a welcoming workplace for diverse employees, it is not enough just to put systems in place. Rather, it is necessary for a culture of diversity and inclusion to permeate throughout the whole company. Nissan holds local diversity-themed events and runs diversity training sessions for employees all over the world. Employees can also learn about Nissan's diversity and inclusion vision and initiatives via diversity articles and e-learning programs on the company intranet.



A symposium for Nissan employees on the theme of diverse work styles.

#### Achievements at Overseas Sites

#### Initiatives to Promote Diversity and Inclusion in the Americas

At Nissan Americas, diversity and inclusion is embedded in our culture. It is the key to a strong and vibrant organization. By actively using our diversity in thought and experience, we better develop ideas and people, and ensure our company's continued growth. We do this by creating opportunities that empower people to grow and achieve more. Ultimately we focus on helping people succeed and making a positive impact on the communities in which we work and live.

We strive to reflect the consumers we serve in our workforce, and that world is increasingly diverse and evolving. Diversity means growth and development opportunities for everyone, respect for all individuals and the inclusion of new ideas, viewpoints and experiences. By encouraging respect for all individuals and sharing our unique perspectives, Nissan Americas will be stronger and sustained long into the future.

#### Mentoring

Our commitment to recruiting and cultivating diverse talent is critical to maintaining our success. Nissan Americas offers a wide range of employee benefits to support the physical and financial wellbeing of employees and their families. One of the programs supporting employee development is mentoring. Mentoring, whether informal or formal, is an essential tool to attract and retain key talent, especially underrepresented employee populations such as women and ethnic minorities. At Nissan Americas, mentoring opportunities are available in a variety of formats, including informal, formal, small group, individualized and topical.

#### **Business Synergy Teams**

Nissan Americas is also proud to offer employees the opportunity to join and/or lead Business Synergy Teams (BSTs). In tandem with executive sponsorship, employees develop BSTs to connect diverse groups of employees with shared characteristics or interests into highfunctioning groups. These BSTs focus on supporting the member's achievement of professional goals, networking, enhancing business activities and decisions, and serving the communities that we live in. Since the first BST launched in 2007, Nissan employees have embraced these groups and have BSTs at every major U.S. location. These BST groups include:

- Gay Straight Alliance at Nissan (GSAN)
- Generations Business Synergy Team
- Green Team
- Multicultural Business Synergy Team
- Nissan Alliance of Parents (NAP)
- Veterans Business Synergy Team
- Wellness@Work Business Synergy Team (W@W)
- Women's Business Synergy Team

The BST members, leaders and Executive Sponsors are critical to Nissan Americas' success in driving diversity and inclusion throughout the organization and into the communities where we live and work. Nissan North America – U.S. partners with many charitable and social causes that enhance the well-being of the communities where we live and work. We invite our employees to serve as volunteers, mentors or advisors, offering their time, talents and expertise to help nonprofit organizations carry out their missions. We have a shared commitment to build a better, more sustainable world for all of us.

#### **Commitment to Diversity and Inclusion**

Acknowledgment of Nissan's commitment and accomplishments in supporting diversity has come from a broad spectrum of organizations and publications. We appreciate that the marketplace has recognized our efforts consistently throughout the years. Diversity Inc. has ranked Nissan in Noteworthy Companies for Diversity & Inclusion since 2014. Nissan has scored 100 percent on the Human Rights Campaign Corporate Equality Index since 2014.

#### Enhancing Workplace Diversity and Inclusion in Europe

In Europe, as part of Nissan's efforts to promote gender diversity, the company holds career fairs and provides support for female employees as they continue their careers. To encourage increased hiring of women with engineering or other technical degrees, in 2014 the Nissan Skills Foundation was established at the company's plant in Sunderland, England, and in 2015 career development events were held for around 7,200 female students between 14 and 19. Additionally, in September 2015 Nissan Europe (NAE) worked with an external group to start a daycare service within 10 kilometers of the company's French headquarters and employees' homes. The company also implemented a program named "Training to Achieve Multicultural Benefits," which raised awareness of cultural differences and provided support to all employees working in multicultural environments.

## External Recognition for Diversity and Inclusion at Nissan

Both Nissan's diversity and inclusion initiatives, and its attitude of placing emphasis on employee diversity, have received considerable external recognition. In 2015 Nissan became the first company in Kanagawa Prefecture to earn Platinum Kurumin certification, which is granted to Kurumin-accredited companies (certified as supporting childcare) that provide an even higher standard of childcare support. Then in 2017 Nissan received the highest thirdlevel Eruboshi accreditation as a company that successfully promotes female participation in the workplace. Additionally, Nissan was the first Japanese automaker to receive a PRIDE Index top Gold award, a scheme which recognizes efforts to support LGBT employees. These awards are a clear sign that Nissan's commitment to diversity and inclusion is producing results and that the company is on the right track in making diversity a key element of its competitive strategy.

Year	Award	Sponsor
2017	PRIDE Index: Gold Award	work with Pride
2017	Perfect Score (100) in Corporate Equality Index (5th straight year)*	Human Rights Campaign (U.S.)
2017	Level-three Eruboshi accreditation	Kanagawa Labour Bureau, Ministry of Health, Labour and Welfare
2017	Nadeshiko Brand (5th straight year)	METI and TSE
2015	Incentive prize, Empowerment Award	Japan Productivity Center
2015	Platinum Kurumin Mark	Kanagawa Labor Bureau, MHLW
2015	Prize for excellence, 15th Tele-work Promotion Awards	Japan Telework Association
2015	Japan's Minister of State for Special Missions Prize, Advanced Corporation Awards for the Promotion of Women	Gender Equality Bureau, Cabinet Office
2014	DiversityInc Top 25 Noteworthy Companies for Diversity & Inclusion	DiversityInc (U.S.)
2013	Diversity Management Selection 100	METI
2013	Grand Prize, J-Win Diversity Awards	J-Win
2008	Catalyst Award	Catalyst Inc. (U.S.)

#### Nissan's Awards for Diversity

\*Awarded to NNA





プラチメ

活躍して

女性が輝く 先進企業表彰

1994

work with Pride



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

# TRAFFIC SAFETY

Traffic Safety Policies and Philosophy

• Traffic Safety Initiatives (<u>Vehicles</u>, <u>Individuals</u>, <u>Society</u>)

GRI103-1 GRI103-2

## Traffic Safety Policies and Philosophy

Popularization of the automobile has transformed people's lives, offering them mobility, convenience and the pleasure of driving. In recent years, the automotive industry has made significant advances, with autonomous driving technologies and various safety and driver-support solutions showing particular progress. Today, society is undergoing major structural shifts due to the aging populations and the rapid progression of urbanization. It is anticipated that technological innovation in the automotive sector can help to address a range of issues toward the realization of a society with less urban traffic congestion and more ways for senior citizens to move about safely.

Nissan designs and engineers cars that embody the "pleasure and richness of driving," while prioritizing a high level of real-world safety. More than 90% of accidents are the result of human error. The company's goal is zero fatalities: reducing the number of deaths from traffic accidents involving Nissan vehicles to virtually zero. \* To this end, Nissan continues to work to improve passenger safety in Nissan vehicles, including the development and adoption of autonomous driving technologies. Nissan also conducts a wide range of other activities, including promoting educational activities that raise safety awareness among drivers, pedestrians and others in the community and, beyond that, striving to construct a safer and more pleasant mobility society.

• \*Click here for more information on Nissan's goal of zero fatalities.

## Traffic Safety Management

Setting its goal at zero fatalities, Nissan is aiming at virtually no fatalities due to traffic accidents involving Nissan vehicles. From 2004, the company's R&D has been striving to develop technologies that enable vehicles to help protect people, based on Nissan's unique concept of the Safety Shield. Nissan has developed technologies that can help stop drivers from coming close to danger or, if a collision cannot be avoided, technologies that reduce damage. Already many different types of Nissan vehicles are equipped with such technologies. Nissan is now working towards the implementation of autonomous driving, a further advance in the company's preventative safety and driver assist technologies. To help people gain a better understanding of traffic safety, Nissan is committed to educational activities to boost safety awareness as well as support activities for improving drivers' skills.

Nissan is working together with government and municipal authorities, universities and other corporations to work toward a safe and pleasant mobility society.

#### Goal of Nissan's Activities to Improve Traffic Safety

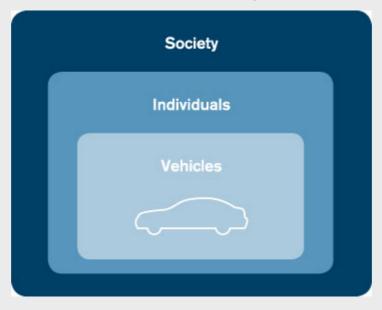
Nissan takes a fundamental approach of pursuing "real-world safety" and aims to help create a society with virtually zero avoidable traffic accidents. In 2017, there were 3,694 fatalities in Japan caused by traffic accidents. While this is 210 less than the previous year, nonetheless more than 3,000 people died due to traffic accidents. The World Health Organization (WHO) reports that approximately 1.25 million people lose their lives each year in traffic accidents globally and that unless urgent steps are taken, death due to traffic accidents could become the fifth leading cause of death worldwide by 2030.

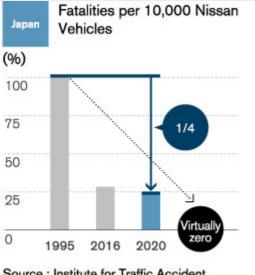
Nissan set a target of reducing the number of fatalities involving Nissan vehicles to half the 1995 level by 2015. In Japan, the United States and Europe (the United Kingdom), this target has been reached. Today, Nissan is engaged in activities aimed at halving this number once again in these markets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

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

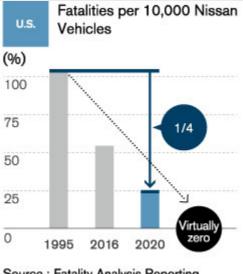
## Nissan's ultimate goal : To reduce the number of fatalities involving Nissan vehicles to virtually zero.

## Nissan's approach : A triple-layered approach, taking measures in the areas of vehicles, individuals and society.



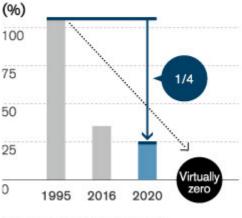


Source : Institute for Traffic Accident Research and Data Analysis



Source : Fatality Analysis Reporting System

Europe (U.K.) Fatalities per 10,000 Nissan Vehicles





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### Vehicles: Developing Safety Technologies

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

#### The Safety Shield Concept

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

#### Key Achievements in the Fiscal Year for Nissan Safety Technology

• In January 2015, Nissan expanded Intelligent Emergency Braking to more models. By the end of fiscal 2015, the technology was available on nearly all vehicle categories sold in Japan, including electric vehicles and commercial vehicles, and it was standard on all major models. In North America, it is available on key models including the Sentra, Altima and Rogue; in Europe it appears on the Juke, X-Trail, Qashqai, Micra and other key models, as well as on the New Nissan LEAF, released in fiscal 2017.

• In Japan, the Japan New Car Assessment Program (JNCAP) awarded a five-star top rating to the New Nissan LEAF in the vehicle collision safety performance assessment. The Note was awarded the highest rating, ASV++, with the top score in the preventative safety performance assessment. In the United States, the U.S. National Highway Traffic Safety Administration's New Car Assessment Program (US-NCAP) awarded a five-star overall safety rating, its highest, to the 2018 Infiniti QX60 and the 2018 Nissan Altima, Maxima, Pathfinder, as well as the all-wheel-drive Murano. The Insurance Institute for Highway Safety (IIHS) awarded the Nissan Altima, Maxima and Rogue with its 2018 Top Safety Pick (TSP) designation (when equipped with LED headlights).

• In Europe, the European New Car Assessment Program (Euro NCAP) awarded a five-star top rating to the New Nissan LEAF and the Micra equipped with a safety pack.

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Risk has not yet appeared Intelligent Distance Control Navigation-enabled Intelligent Cruise Control with full-speed range following capability Adaptive Front-Lighting System (AFS) Intelligent Around View Monitor Intelligent Rear View Mirror	Helps the driver to maintain comfortable driving	
Risk has appeared Intelligent Forward Collision Warning Lane Departure Warning Intelligent Lane Intervention Blind Spot Warning Intelligent Blind Spot Intervention Intelligent Back-up Intervention Intelligent Driver Alertness Rear Cross Traffic Alert Crash may occur Intelligent Emergency Braking Anti-lock Braking System (ABS) Vehicle Dynamic Control (VDC) Emergency Brake for Pedal Misapplication	Helps the driver to recover from dangerous conditions to safe driving	
Crash is unavoidable Front Pre-Crash Seatbelts Crash Zone Body construction SRS Airbag Systems Pop Up Engine Hood Post-crash Automated Airbag-Linked Hazard Lamps	Helps minimize injuries when a collision is unavoidable	

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

With the concept of its Safety Shield, Nissan supports the safety of drivers and passengers in a variety of scenarios, from the overall perspective of helping prevent or mitigate certain collisions and potential injuries.

For example, in normal driving or when parking vehicles, sensors and cameras monitor vehicles as well as pedestrians which may be difficult for drivers to see, thereby supporting drivers and enabling them to have peace of mind anytime they drive. In times of potential danger, the vehicle can judge in an instant how to assist in avoiding or lessening that danger. Nissan has set a goal of providing optimal mobility worldwide and is committed as an automobile manufacturer to the swift and wider popularization of its safety technologies.

#### Latest Safety Technologies

#### Intelligent Emergency Braking

When the front-mounted camera detects another vehicle or a pedestrian ahead and the risk of collision increases, visual warnings appear in the meter display, and an audible signal alerts the driver to take avoidance action. If the driver does not reduce speed in a safe manner, an emergency brake is applied to help avoid a collision or to reduce damage and injuries.

#### **Emergency Brake for Pedal Misapplication**

While driving at low speed, such as when parking, if the driver mistakes the accelerator for the brake, or if there is a wall; or there is some other obstacle in front, or another vehicle or pedestrians; or if the driver is slow to apply the brake and a risk is detected of collision with some obstacle, the driver is warned by a visual alert in the meter display and a warning sound. Furthermore, the system automatically controls the power output and braking to help prevent collision with an obstacle and to help prevent excessive acceleration. The system can detect walls as well as glass windows of storefronts and assists in helping prevent both front and rear collisions.

## Lane Departure Warning/Intelligent Lane Intervention

The Lane Departure Warning system helps alert the driver when the car appears to drift out of its travel lane with a visual warning in the meter display and by vibrating the steering wheel. Furthermore, the Intelligent Lane Intervention system can automatically help the driver return to the travel lane by swiftly redirecting the vehicle toward the intended lane.

#### Intelligent Driver Alertness

When the Driver Alertness system detects via the driver's steering activity that driver alertness may be reduced, a visual warning that appears in the meter display and an audible signal urge the driver to take a break.



#### Intelligent Rear View Mirror

When the switch is flipped on, the Intelligent Rear View Mirror shows a view using a camera mounted in the rear, providing clear rearward visibility. The mirror is not impeded by the cargo in the vehicle, and the sensitivity of the camera can be increased in low-light conditions, such as nighttime, helping provide the driver with a clear rearward view.

#### Intelligent Around View Monitor

The images that show the vehicle by virtually looking down from a "bird's eye view" overhead clearly define the relation between the car and parking spaces, assisting the driver in parking. If the system detects moving objects around the car, the monitor alerts the driver. The system also supports the driver with safety checks when entering a garage or pulling out of a parking space.

#### Rear Cross Traffic Alert

The Rear Cross Traffic Alert warns drivers backing out of a space when there is a detected risk of vehicles behind them approaching from either side.



#### Blind Spot Warning

When the Blind Spot Warning system detects a vehicle diagonally behind the vehicle, it indicates the presence of this vehicle to the driver. Furthermore, when the driver has the indicator on, the driver is alerted by visual and audible warnings.



#### From Preventive Safety to Autonomous Drive

Nissan is enhancing its preventive safety technologies to support the four basic steps in avoiding accidents: sensing, cognition, judgment and action. The company is now developing autonomous driving technologies as one next step in its approach to driving safety. The company believes that autonomous driving could help 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.



A Nissan Autonomous Drive test vehicle

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

In a society facing issues including aging populations and urban congestion, autonomous driving technologies may one day be able to help reduce traffic accidents, thus providing peace of mind to drivers and increasing mobility for the rapidly growing number of senior citizens. Nissan believes that autonomous driving technologies are a major breakthrough offering new mobility value. The company is proactively developing these technologies and working to bring them to market. In August 2016, ProPILOT enabled autonomous driving technology in a single highway lane in the new Serena. ProPILOT allows steering, acceleration and braking to be operated in full automatic mode, easing the burden on drivers in heavy traffic and during long drives.

Nissan is progressively deploying ProPILOT globally. So far, in Japan, it is available in the Serena, X-Trail and New Nissan LEAF. In the United States it known as ProPILOT Assist and is available in the Infiniti QX50, Rogue and New Nissan LEAF; and in Europe, it is available in the New Nissan LEAF and Qashqai. The total number of vehicles sold that were equipped with ProPILOT exceeds 126,000. Nissan has announced that it intends to deploy ProPILOT in 20 models for sale in 20 markets by 2022. The number of vehicles equipped with ProPILOT sold annually by 2022 is expected to reach 1 million.

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## Individuals: Nissan's Traffic Safety Activities

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

#### Japan

Traffic accidents are statistically more likely to occur during the dusk hours from 4:00 to 6:00 p.m. As part of the Hello Safety Campaign, Nissan began urging drivers to turn on their headlights earlier in the evening in the Omoiyari Light Promotion. Nissan has been involved in this campaign since 2010 and is promoting activities to raise public awareness of traffic safety through civic activities that use communication in both directions.



In fiscal 2017 Nissan developed these activities with a two-pronged approach by using the Nissan Global Headquarters Gallery and by advancing the Twilight-Time Omoiyari Town Project (Omoiyari Light Promotion).

1. Using the Global Headquarters Gallery: Nissan's Omoiyari Light Promotion started in Yokohama with Nissan's promotion of it as a civic activity. Holding events at the Global Headquarters Gallery has offered more opportunities to inform visitors to the gallery about the campaign. In spring and autumn approximately 1,000 supporters gathered at the gallery, and events were held using the stage in the gallery.



Participants at the spring event.

In spring, motor journalists were invited to the gallery and a discussion about a safe mobility society was held together with members of the audience. At the event held in autumn, with the theme of bicycles and cars coexisting on roads, participants representing road authorities along with bicycle and automobile manufacturers conducted a lively discussion.



A scene from the autumn event discussion.

In addition, every day in the late afternoon, women who had been chosen as Nissan's Miss Fairlady give presentations on the Omoiyari Light Promotion, while a concept movie produced by the musician SIESTA, who supports the campaign, was shown. Through these activities Nissan has made the Omoiyari Light Promotion well known to the general public.

2. Twilight-Time Omoiyari Town Project: In order to further the Omoiyari Light Promotion, initiatives began to support the activities of organizations acting of their own volition. In fiscal 2017 Niigata in Niigata Prefecture, Sabae in Fukui Prefecture, Takamatsu in Kagawa Prefecture, Kamiyama in Tokushima Prefecture, and Nagasaki and Sasebo in Nagasaki Prefecture conducted activities.



In Takamatsu, the local economic business organization promoted events to raise awareness of safety, while in Kamiyama a civic organization held a workshop for making reflective keyholders. Each of the above cities and towns held their own special activities. On November 10, designated as the "Day of Good Lighting" (based on a Japanese play on words), various activities were held at roadsides around Japan to promote switching lights on. In Nagasaki, around 50 people participated at Nagasaki University; in Niigata, 15 people from the Niigata Prefectural Police and Niigata University who had joined together to form NUTS (Niigata University Traffic Safety Supporters) participated; and in Sabae, 70 people took part in activities centered on the Fukui Prefectural Sabae Police Station. It is anticipated that the Twilight-Time Omoiyari Town Project will expand further in the future. As a result of these activities, corporations, nonprofit organizations, car lovers and other stakeholders have gained greater understanding of the safety practice and are putting it to use more frequently. Nissan's Omoiyari Light Promotion is steadily gaining broad acceptance among the public.

#### Nissan Safety Driving Forum in International Markets

Nissan conducts its Nissan Safety Driving Forum in international markets as part of efforts to promote safe driving behavior. The aim is to enhance road safety awareness among the general driving population.

Held in countries like China, India and Russia, the forum travels to multiple cities, teaching participants the importance of road safety through programs using simulators and safety technology exhibitions.

Partnership with the FIA for Traffic Safety

In 2014, Nissan and the Fédération Internationale de l'Automobile (FIA) formed a partnership to make world roads safer through the FIA Action for Road Safety\* campaign. Nissan is an official supporter of the FIA's innovative awareness-raising campaign, launched to bolster

the United Nations Decade of Action for Road Safety.

As part of this partnership, Nissan works worldwide to promote the FIA Golden Rules for Safer Motoring\* with the aim of helping to reduce the number of deaths from traffic accidents. By signing the FIA Online Pledge\*, campaign supporters publicly commit to driving safely. Through the Nissan Safety Driving Forum and other outreach efforts, Nissan works to educate drivers about the FIA Golden Rules and the FIA Online Pledge. At the NISMO Festival—a fan appreciation event hosted by Nissan Motorsports International—Nissan promotes its safety activities while placing campaign logo decals on the race cars that are displayed or driven in the festival and stresses the importance of traffic safety to festival visitors by holding talk shows where drivers discuss traffic safety. Since 2016 a dedicated booth at the festival has been used to actively promote and collect signatures for the FIA Online Pledge.

Olick <u>here</u> for more information on Nissan's partnership with the FIA.



A participant using a driving simulator.



At the NISMO Festival.



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## Society: Working Together with Society

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

#### Helping Reduce Wrong-Way Accidents

Recently, Japan has seen an increase in the number of incidents involving vehicles traveling in the wrong direction on expressways. Working together with West Nippon Expressway Co., 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, vehicle speeds and other data. The driver of a vehicle going the wrong way receives audible and visual warnings. The system appeared in the Nissan Fuga Hybrid released in October 2010 and is now available as an option on nearly every type of vehicle sold in Japan, including electric vehicles and commercial vehicles.

#### Trialing the Driverless Towing System that Uses Autonomous Drive Technology

Nissan works to improve production efficiency for the towing of finished vehicles. The Intelligent Vehicle Towing system using a modified Nissan LEAF to autonomously tow trollies carrying finished vehicles was implemented on a trial basis in 2015. The driverless system can carry a maximum of three vehicles at once. The data and know-how obtained through this project will help to enable broader adoption of Autonomous Drive technology, allowing Nissan to provide new solutions to our customers and to society.



The Intelligent Vehicle Towing system.

#### Applying NASA Technology to Develop AI for Autonomous Vehicles

To realize fully autonomous city driving, Nissan is developing the Seamless Autonomous Mobility system, or SAM. SAM can help cars to safely navigate unforeseen situations, such as accidents, road construction or other obstacles. When decision-making is difficult for autonomous vehicles, a remote operator draws up an ideal route to manage the challenging situation and sends it to the vehicles remotely for execution.

#### Field Testing Commercial Mobility Services Using Driverless Vehicles

Nissan and the Japanese Internet firm DeNA Co. are jointly developing a new mobility service called Easy Ride, which uses driverless vehicles. In March 2018, field tests of the Easy Ride service were conducted in the Minatomirai district of Yokohama in Kanagawa Prefecture with monitors as passengers in test cars equipped with autonomous driving technology. The service has been undergoing assessment and checking. Nissan and DeNA will work together to develop service designs for driverless environments, expand service routes, establish optimal distribution logic for when the vehicles share congested roads with driver-operated vehicles, as well as pick-up/drop-off processes, and consider multilingual support. The companies aim to launch a full service in the early 2020s.

## PRODUCT SAFETY AND QUALITY

- Product Safety and Quality Policies and Philosophy
- Product Safety and Quality Management
  Product Safety and Quality Initiatives

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## Product Safety and Quality Policies and Philosophy

The rating of a product and the value of an auto manufacturer's brand are dependent on the customer's appraisal of quality. Technical innovations are proceeding at a rapid pace in the automotive industry, and customers are demanding ever-higher levels of quality in the products they purchase. A company can reinforce its brand by continually providing the value customers expect, but failing to meet expectations even once makes it harder to maintain a platform for providing new value to those customers.

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

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

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

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

#### **Quality Policies and Philosophy**

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.

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.

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 product. This includes the perceived quality when a customer opens the vehicle door in the showroom, sits in the seat and takes a test drive; the initial quality in the first year after purchase; and the durability that remains even after many years of use.

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

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

#### GRI103-1 GRI103-2

### Product Safety and Quality Management

For Nissan, ensuring the safety of customers who purchase our cars and providing quality that customers will always be satisfied with, are both important issues for gaining customer trust. In order to be a company trusted by its customers and to achieve sustainable growth, Nissan has set the companywide goal of being recognized by customers as a brand with toplevel quality. Nissan has created a system to promote the improvement of quality globally, with top executives assigned to be responsible for quality. All Nissan employees are working together as one to tackle the improvement of quality globally.

#### Management System for Product Safety and Quality

Nissan has tapped a number of executives, headed by the Chief Quality Officer (CQO), to be responsible for leading efforts to achieve top-level quality. This has raised the focus on quality in addition to boosting employee awareness, encouraging companywide endeavors to meet targets.

The company created committees to discuss specific issues, the most important of which is the Global Quality Meeting at which the top executives for each region and function gather together under the leadership of the CEO. The executives responsible for quality also head the Global Quality Management Committee. These committees operate cross-regionally and cross-functionally.

GRI103-3

## **Product Safety and Quality Initiatives**

#### 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 product design and development to after-sales service.

#### Rapid Response to Customer Feedback

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

Nissan's customer call center in Japan annually receives approximately 200,000 comments and questions from customers. All catalogs, instruction manuals and similar materials published over the last 50 years have been digitized for easy searching, letting operators address customer concerns as quickly as possible. Operators also have access to a database of frequently asked questions and their answers, organized by vehicle models, keywords and categories.

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

#### Sharing Customer Feedback

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

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

#### Reflecting Customer Feedback in Products and Services

Nissan has implemented a system for reflecting customer feedback in its products and services. The feedback is put to work through reliable information sharing among all functions, including product planning, R&D, manufacturing and sales. Product quality involves more than just mechanical faults: It includes all factors that may affect customer satisfaction (CS). Nissan sees these factors as issues requiring action and strives to improve quality in all these areas. The value that customers expect from products varies according to their personal tastes and unique expectations and can be affected by such market factors as the level of vehicle ownership or the climate in a certain market. Although Nissan uses a set of basic specifications for global design, it also makes adjustments to meet regional needs. The Chief Quality Engineer (CQE) performs this role, working to enhance CS and reduce defects by participating in the vehicle manufacturing process from the product planning stage. Nissan gleans customer perspectives from market information and employee monitors. Priorities are set from the planning and development stages to consider responses that will be reflected in products and services.

#### Initiatives for Forming a Customer Perspective: Fostering a CS Mindset

To improve quality across the company, all employees must consider the customer's perspective and keep Customer Satisfaction (CS) in mind as they work. For this reason, Nissan implements numerous activities for incorporating customer views. One of these is regular CS mindset training.

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

The company has held the Nissan Quality Forums for executives, employees and suppliers since 2003. These forums use information displays, video presentations and actual vehicles and parts to showcase Nissan's latest status on quality, customer feedback and activities aimed at meeting targets. These annual forums are organized cross-functionally by the Total Customer Satisfaction Function (TCSX)\* and the R&D, manufacturing, sales/service and other divisions in order to raise all employees' awareness of CS and quality-improvement issues. The forums take place in Japan, the United States, Mexico, Brazil, Europe, China, India, Thailand, Indonesia and other locations around the world. In fiscal 2017, more than 7,000 participants reaffirmed the importance of quality at these gatherings.

\*The TCSX targets an overall increase in customer satisfaction in all of the touchpoints involving customers including the planning and design to R&D of new products, manufacturing, distribution, sales and aftersales service, in order to provide our customers with products that satisfy them.

#### Improvement of Product Quality

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

Nissan categorizes product quality into areas including perceived quality, initial quality and durability. Quality-improvement efforts target the entire lifecycle of a product, 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.

#### Improving Perceived Quality

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

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

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

#### Improving Initial Quality

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

To ensure that customers are satisfied, Nissan maintains a firm commitment to enhancing quality at the manufacturing stage for every single product that comes off the line. Toward this end, Nissan has implemented the Alliance Production Way as its fundamental approach in this area. The Chief Vehicle Engineer, responsible for development, and the CQE meet to share information from the market in order to promptly respond to customers' wishes and potential satisfaction concerns.

The company confirms quality improvements for each process and considers the necessary risk-reduction measures by visualizing potential risks at the planning stage.

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

#### Enhancing Durability

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

#### Promotion with Suppliers of Risk Evaluation and Reduction Management

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

Nissan is promoting stronger global management for the head offices of its suppliers with global operations and working to enhance its own global quality management. Nissan representatives visit each supplier's plants and check the quality-control conditions on their production lines. The company also offers support for their improvement efforts so that they can reach required quality-control standards.

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

#### Swift Improvement of Quality in Local Markets

Nissan is strengthening direct communication with sales companies and customers to promptly identify and respond to customer dissatisfaction and defects. The Total Customer Satisfaction Function (TCSX) addresses customer dissatisfaction and quality issues based on information from sales companies and the customer call center. It shares the information with the R&D and manufacturing divisions to investigate the causes and come up with countermeasures. The countermeasures are reflected on the production models in the market. In this way, Nissan seeks permanent solutions to prevent additional issues. The global expansion of Nissan's corporate activities has increased the company's exposure to potential customer dissatisfaction and quality issues in many more regions of the world. Nissan established its Field Quality Centers (FQCs) with the goal of promptly gaining an understanding of quality issues and analyzing the causes on site. There are now 19 FQCs in operation in locations including Japan, the United States, Europe, China, Mexico, Brazil, South Africa, India, Australia, Thailand, Indonesia and Malaysia.

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

#### Producing Products of Consistent Quality Worldwide

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

#### Nissan's 4G Strategies

#### Global 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 Alliance Production Way. Graduates of the Master Trainer programs take part in training programs for local staff in regional training centers, effectively passing their skills on to others. Global Professional Development 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, optimization of parts supply routes, in-plant logistics, 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.

#### Quality Evaluation System

Each of Nissan's production cars and development models is subjected to an evaluation system called AVES,\* thereby allowing the company to monitor quality on a daily basis. Feedback from customers is reflected in a standardized set of evaluation criteria, which is then used to train specialists capable of assessing quality. Only these company-certified experts known as "AVES Masters" can perform the final strict assessments.

The assessment process includes evaluation of the vehicle's interior and exterior, along with running tests of the vehicle while it is in operation. Assessments focus on whether the vehicle meets quality standards defined in terms of the customer's requirements.

During the running tests, carried out on actual roads, assessors check the vehicle in areas including unexpected noise, vibration, stability of handling, and functionality of its various advanced systems.

Final responsibility for the overall quality is the responsibility of the Chief Quality Engineer (CQE), who envisages different scenarios of how customers will use Nissan vehicles and then carries out stringent quality checks.

\* AVES stands for Alliance Vehicle Evaluation Standard. AVES is a quality evaluation system used across the Renault-Nissan Alliance, in which specially trained experts assess Nissan vehicles using more than 300 quality assessment criteria established from the customer's perspective.

#### Supplier Inspections and Training for Improving Product Safety and Quality

To ensure product safety, Nissan works together with suppliers and conducts inspections for products as well as components.

Each component from our suppliers represents the end-product of a complex manufacturing process – including planning and development validation, turning design blueprints into prototypes, performance testing to the final mass production. Nissan has created a system called ANPQP<sup>\*1</sup> for regulating the necessary quality assurance in this entire series of activities. The ANPQP requires tests to be carried out on every component from suppliers to ensure the delivery of high quality components from Nissan's suppliers.

To determine whether new suppliers are able to deal with these kinds of tests, Nissan has developed the ASES system.<sup>\*2</sup> ASES contains 240 evaluation criteria to determine if a component is flawless or defective, and to analyze what kind of system is in place to prevent problems occurring. ASES is used onsite at the supplier's factory. New suppliers undergo training for ANPQP and after they achieve a specified level they certified as trainers. They then conduct training at the supplier and implement the creation of a system for supplying precision-built components.

Suppliers already dealing with Nissan are given a scorecard assessment that encompasses diagnostic measurements such as deliver quality and market quality. In addition, the SHC<sup>\*3</sup> system also conducts inspections of the supplier factory to check the management system. This periodic checking ensures that a system is maintained for consistently delivering good quality components as well as checking that suppliers are conducting new initiatives for further improving on quality.

<sup>\*1</sup> ANPQP stands for Alliance New Product Quality Procedure. Nissan created the ANPQP based on the standard for automotive sector quality management systems IATF16949, published by the International Automotive Task Force (IATF), to establish supplier quality assurance standards.

Olick here for more information.

<sup>\*2</sup> ASES stands for Alliance Supplier Evaluation Standard. ASES is used to evaluate if a vendor qualifies to become a suitable supplier. Based on the evaluation of 240 criteria at five stages, Nissan ranks potential vendors as either A, B, C or D, and then forms a business relationship with the top-ranked industry suppliers.

<sup>\*3</sup> SHC stands for Supplier Health Check. SHC is Nissan's unique system for checking suppliers' quality management systems and how such systems are actually being implemented.

#### Improvement of 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 purchasing process. The goal is to exceed customer expectations at all contact points. Through effective management of sales and service quality at dealerships in major 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 20 key markets, including Japan, the United States and major European markets, thereby boosting its brand image worldwide. In fiscal 2017, Japan and Mexico have retained their places in the top group for both "SSI" and "CSI" in J.D.Power assessment, continuing on from fiscal 2016.

#### The Nissan Sales and Service Way

Nissan has established the Nissan Sales and Service Way (NSSW) as a set of global guidelines. These aim to improve customer perceptions of Nissan's brand and products, as well as to increase satisfaction with its sales and marketing activities and after-sales service. The company conducts a range of activities to increase CS and to improve sales and service quality based on the NSSW.

In particular, as well as improving its dealership facilities, the company sets new global standards and carries out new initiatives to provide customers with consistent purchasing and service experiences. Nissan aims to respond rapidly to customers' dissatisfaction and other issues and review business processes to reflect feedback collected through channels including contact centers and dealerships, as well as via emails and social media.

#### Enhancing Global Dealership Standards

In response to the diversification of customers' expectations and lifestyles, Nissan is introducing a new initiative called the Nissan Retail Concept (NRC) to dealerships around the world to promote their standardization. By improving sales and service quality through a globally consistent brand experience, Nissan aims to improve customer satisfaction. With the rapid spread of digitalization, consumers' purchasing behavior and ownership experiences are changing dramatically. To respond to these changes, Nissan has introduced global standards for the improvement of Nissan dealership operations such as renovating their conventional design and creating a digital environment in the dealerships. Adoption of the new standards has already begun in key countries and Nissan intends to proceed with the new concept worldwide.

The new layout and design of dealerships aim to create attractive dealerships for all customers—whether they have come to purchase a new car or to get a vehicle inspected or serviced—that are comfortable, welcoming places to spend time while also offering needed services as efficiently as possible. Nissan aims to thoroughly standardize its sales and service process for customers and by responding to diverse customer needs, the company hopes to improve the degree of satisfaction in customers who visit dealerships.

With the adoption of digital tools, Nissan is aiming to make dealership operations more efficient and to assist customers considering the purchase of a new car. To ensure that the new standards will be adopted in each country, the Nissan Academy, a special team for training dealers, will develop and conduct training for dealership staff in order to provide an experience that goes beyond customer expectations.

NRC also incorporates Nissan brand's key elements, such as Nissan Intelligent Mobility, electric vehicles, NISMO performance sub-brand, light commercial vehicles, and Nissan Intelligent Choice (certified pre-owned Nissan car program). As well as promoting the Nissan brand and aiming to expand business, the company hopes to improve customer satisfaction and convenience.

To boost the quality of sales and service activities at dealerships, Nissan trains specialist staff and makes continuous improvements to these activities. These specialists analyze dealer operation based on the facts, developing improvement plans fitted to their individual situations and supporting implementation. For example, they visit dealerships after analyzing CS surveys and understanding voice of the customers, clarifying the issues by observing workplace operations and interviewing on-site staff. They then discuss potential solutions with the staff and provide guidance so these outlets can make autonomous improvements.

# SUPPLY CHAIN MANAGEMENT

- Supply Chain Strategy Supply Chain Management Policies and Philosophy
- Supply Chain Management Approach • Action Against Conflict Minerals

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## Supply Chain Strategy

The challenges facing modern societies, such as climate change and energy issues, are increasingly global in their scope. To meet these challenges, it is essential for Nissan to identify relevant issues at each stage along the supply chain and make ongoing efforts to address them. As a business with worldwide operations, Nissan has a supply chain that extends across the globe. The company promotes consistency in procurement practices throughout the global supply chain, sharing its vision and principles with business partners and engaging with them to ensure their adoption.

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

#### Nissan's Approach to The Supply Chain

To promote effective purchasing activities, the Alliance partners established a common purchasing company, the Renault-Nissan Purchasing Organization, in 2001 and have steadily increased the scope of its activities in the years since then. The organization now covers all purchasing domains, incorporates all purchasing functions and builds mutually profitable business partnerships with all suppliers. In April 2018 Mitsubishi Motors joined the partnership, and the organization changed its name to the Alliance Purchasing Organization. The new organization aims to help each brand achieve sustainable performance with the steady development of the Alliance and advantage of economies of scale.

Nissan uses common, transparent processes and criteria worldwide for sourcing suppliers and offers other companies a wide variety of opportunities to do business with it, regardless of nationality, size or Nissan-related history. Suppliers are selected after the relevant Nissan divisions meet to examine their proposals from a range of perspectives. Nissan explains its decisions to every supplier that takes part in the sourcing process as part of a thoroughly fair, impartial and transparent system.

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

Nissan and Renault have produced a booklet, The Renault-Nissan Purchasing Way,\* outlining the values and processes the Alliance sees as important when doing business. This booklet has been shared with tier-1 Renault and Nissan suppliers since 2006. In Japan, Nissan also confirms to the "proper trading guidelines" issued by the Ministry of Economy, Trade and Industry for the automotive industry.

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

#### Supply Chain Company Organization

#### The Alliance Purchasing Organization of the Renault-Nissan-Mitsubishi Alliance



#### RENAULT NISSAN MITSUBISHI

Processes from Supplier Selection to Mass Production



#### Working with Suppliers

Nissan aims to make its global supply chain sustainable by conducting ethically, socially and environmentally responsible business at every stage. The company collates and manages a database of plant locations, total purchase values and other basic information for all suppliers. Nissan is working together with all suppliers to promote the sustainability principles set out in the Renault-Nissan CSR Guidelines for Suppliers and the Nissan Green Purchasing Guidelines.\*

• \*Click here to download the Nissan Green Purchasing Guidelines.

#### GRI103-1 GRI103-2 GRI103-3 GRI406-1 GRI407-1 GRI408-1 GRI409-1 GRI411-1

#### Supply Chain Management Policies and Philosophy

#### Renault-Nissan CSR Guidelines For Suppliers

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

Key revisions and clarifications in the 2015 edition included, as a response to new laws and ordinances, updating the procurement policy to include responsible mineral procurement and the elimination of antisocial forces based on new Japanese governmental guidelines and regulations; requiring a shared commitment to sustainability activities with suppliers at the time the guidelines are distributed; and beginning third-party assessment of Alliance supplier sustainability activities in fiscal 2016. As part of efforts to promote sustainability practices among business partners in emerging countries, the revised guidelines were published in Chinese as well as English and Japanese.

To help suppliers review their corporate activities from a sustainability perspective and take sustainability actions, the guidelines explain expected practices in 26 categories across the following five areas:

1 Compliance: Complying with laws, preventing corruption, etc.

2 Safety and Quality: Providing products and services that meet customer needs, etc.3 Human Rights and Labor: Prohibition of child labor and forced labor, complying with working hours and remuneration laws, etc.

4 Environment: Environmental management, reducing greenhouse gas emissions, etc. 5 Information Disclosure: Open and impartial communication with stakeholders, etc. The guidelines mandate compliance with laws and regulations. If suppliers engage in activities that violate the law, they are to report this immediately, along with the results of any investigation, and submit corrective countermeasures. In case of infringement, Nissan will take firm action based on company regulations and do everything necessary to prevent a recurrence. In fiscal 2017 no suppliers reported human rights violations, such as discrimination, and no suppliers were found to be at serious risk of forced labor or child labor.

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

#### Suppliers and Environmental Activities

Nissan shares its environmental philosophy and environmental action plan with suppliers. To improve environmental performance throughout the supply chain, Nissan first published the Nissan Green Purchasing Guidelines in 2001 and has promoted actions in line with these guidelines since then. After Nissan and Renault integrated their technical standards for management of chemical substances in fiscal 2016, the company published a revised version of the guidelines<sup>\*1</sup> in January 2017 and instructed suppliers to apply them. These guidelines are more detailed than the environmental section in the Renault-Nissan CSR Guidelines for Suppliers.

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

To reflect trends in regulations worldwide, such as the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH, Regulation and the European Reusability/Recyclability/Recoverability (RRR Directive, Nissan has added to the list of banned substances and expanded component data management globally. The company also checks materials management and activities designed to reduce the environmental burden when selecting suppliers for new cars, informs suppliers of specific actions needed to comply with the REACH regulation and requires their compliance.

Based on the Nissan Green Program 2022 (NGP2022,<sup>\*2</sup> the company's midterm environmental action plan, Nissan holds annual environmental briefing sessions and has since fiscal 2012 conducted surveys to ascertain CO<sub>2</sub> emissions, water usage, waste production and other data related to environmental burden. To further enhance its activities in this area, in fiscal 2014 Nissan adopted the supply chain program run by CDP, an international environmental NPO that manages a global system for disclosing corporations' environmental impact and strategies. In fiscal 2017, in partnership with CDP, Nissan worked to increase the accuracy of its performance data.

\*1 Click <u>here</u> to download the revised version of the Nissan Green Purchasing Guidelines.
 \*2 Click <u>here</u> for more information on NGP2022.



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 2022 ■Midterm environmental action plan

### Renault-Nissan CSR Guidelines for Suppliers

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

Nissan Green Purchasing Guidelines Compliance with regulations and Nissan's basic environmental principles Establishment of management system Management of chemical substances Activities to reduce environmental load

Completion of surveys on CO<sub>2</sub> emissions, water usage, other environmental factors

#### GRI103-1 GRI103-2 GRI103-3 GRI308-1 GRI414-1

## Supply Chain Management Approach

Nissan has been working to improve its supply chain through activities including third-party assessment of suppliers' sustainability activities and sustainability training for workers in its purchasing department. It has also instituted an awards system to recognize suppliers whose performance is superior. 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 social responsibility and environmental concern.

#### Evaluation of Supplier's Sustainability Practices, Monitoring and Auditing

Nissan confirms suppliers' acceptance of the Renault-Nissan CSR Guidelines for Suppliers and checks their environmental management systems and acceptance of environmental activities together with Nissan at the time of selection. Among newly selected suppliers in fiscal 2017,

100% of them met Nissan's social standards and basic environmental principles.

In 2016 the Renault-Nissan Alliance began third-party assessment of suppliers' sustainability activities to raise standards through mutual confirmation. When results do not meet Alliance standards, suppliers are asked to draw up plans for improvement. Nissan then monitors their implementation.

Nissan also conducts sustainability training in its purchasing department to ensure that employees are equipped to check suppliers' sustainability activities during daily operations. Any issues regarding the supply of parts and materials may lead to problems for Nissan's production and supply chain as a whole. The company therefore addresses sustainability comprehensively with the following measures, in addition to confirming risks to supply under normal circumstances: following up annually on quality, cost, delivery, development and management (QCDDM) performance and working with suppliers to craft response plans for natural disasters to ensure production continuity or early restoration of capacity. Nissan promotes supplier observance of compliance requirements from the perspective of supplier management, constantly assessing the situation at each supplier based on a range of factors. If a case of high risk arises, Nissan works with them to rapidly draft and implement countermeasures.

In fiscal 2017 no suppliers were found to have a significant negative problem from the compliance point of view, and no supplier contracts were terminated for the same reason.

#### Promotion of Monozukuri Activities with Suppliers

Nissan works to continually improve the competitiveness of its products through its Monozukuri Activities program, a collaboration between suppliers and Nissan launched 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 strives to improve product quality, reduce costs and rationalize manufacturing through measures that include increasing production volume per part, promoting localization and improving logistics. Based on activities at its own plants, Nissan is also working with major suppliers to reduce their electricity, gas and other energy costs and  $CO_2$  emissions as an energy-efficient THANKS Activities initiative.

## THANKS

Trusty and Harmonious Alliance Network Kaizen activity with Suppliers

In fiscal 2013 Nissan introduced the Total Delivered Cost (TdC) Challenge, aiming to optimize all fluctuating costs, including for specifications, materials, exchange rates and logistics. Nissan's various functional departments and suppliers continue working strongly together on the TdC Challenge to improve both quality and supply as part of Nissan's efforts to achieve the goals of its midterm business plan, Nissan M.O.V.E to 2022.\*

• \*Click here for more information on the midterm plan, Nissan M.O.V.E to 2022.

#### 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, midterm business plan and other matters. In Japan, Nissan holds monthly meetings and directly informs suppliers of its production plans,

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 the worldwide Global Quality and Global Innovation Awards. These are presented to suppliers that have contributed to Nissan's business performance at the global level. 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 Nissan's production, development and quality divisions in two categories: product technology and process management. In fiscal 2017 five companies received Global Quality Awards, while Global Innovation Awards went to eight companies in the product technology category.

GRI103-1 GRI103-2 GRI103-3 GRI412-1 GRI414-1

## Action Against Conflict Minerals

#### **Conflict Minerals Policy**

In August 2012 the U.S. government enacted regulations requiring companies to report the use of four minerals mined in the Democratic Republic of the Congo and surrounding countries and believed to be sources of funds for armed insurgents. Agreeing with the spirit of this legislation and aiming to heighten sustainability awareness, Nissan established a policy against use of the conflict minerals and published related information on its website.\* Investigations of its supply chain for any use of conflict minerals have been conducted since fiscal 2013.

Checking for conflict minerals throughout the global supply chain is a major undertaking. Nissan regularly discusses the issue in working groups with organizations including the Japan Automobile Manufacturers Association, Inc., the Japan Auto Parts Industries Association and the Japan Electronics and Information Technology Industries Association, seeking to establish best practices for investigation and result analysis.

• \*Click <u>here</u> for more information on Nissan's measures against conflict minerals.

#### **Conflict Minerals Management**

Nissan began conducting conflict-mineral surveys in its major operational areas (Japan, North America and Europe) in 2013. Starting in 2014, it gradually expanded the scope of these surveys to include suppliers in other areas. The surveys track minerals back through the chain of suppliers using documents called CMRTs (Conflict Mineral Reporting Templates) provided by the RMI.\* This lets Nissan identify smelting and refining companies and confirm that they are not procuring minerals that are a source of funds for armed groups in their regions.

Nissan provides the suppliers it surveys with manuals describing how to fill in required forms and what tools to use to collate results. In this way, the company works to increase understanding of conflict-mineral issues throughout the supply chain.

In fiscal 2017 Nissan conducted surveys in Japan, North America, Mexico, Europe, China, Thailand, Indonesia, Taiwan, India and South Africa. No suppliers were found to be using minerals from smelters/refineries believed to be connected to armed groups.

Going forward, Nissan plans to make its surveys more effective by improving its methodology in conjunction with the member companies of the Japan Automobile Manufacturers Association, Inc., and the Japan Auto Parts Industries Association. Nissan will also continue to seek responses from suppliers that did not reply to the survey.

\*RMI stands for Responsible Minerals Initiative, an organization with member companies and associations from the information and communications technology and other industries that works to improve global social and environmental awareness.

## HUMAN RESOURCE DEVELOPMENT

- Human Resource Development Policies and Philosophy
- Human Resource Development Management
- Human Resource Development Achievements

GRI103-1 GRI103-2

### Human Resource Development Policies and Philosophy

Nissan believes that for employees to work in a worry-free, self-initiated manner, they need to be able to pursue their careers regardless of gender, nationality or other factors. Skill development programs are another essential part of making the workplace attractive to employees.

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 its employees' personal growth through proactive human resource development.

GRI103-2 GRI103-3

GRI404-2 GRI404-3

#### Human Resource Development Management

#### 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 all employees to meet with their supervisors 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 2017, a total of 234 employees applied for 301 open posts, and 75 of them succeeded in getting the positions they applied for.

#### Offering Learning Opportunities

Developing human resources is the foundation of our midterm plan, Nissan M.O.V.E. to 2022. Believing that employees are Nissan's most important resource and cultivating their skills is a vital task for the company, Nissan supports many learning opportunities for employees. Nissan has developed various programs based on the Nissan Way, the company's employee code of conduct, designed to help employees improve their management and business skills, and engage in leadership development. In this way, employees are encouraged to enhance their skills to build their careers and demonstrate their abilities to the fullest. Specifically, within the company, Nissan implements training programs allowing employees to gain the task- and position-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 the global level within Nissan.

#### Monozukuri University

The auto industry today is marked by the rapid pace of innovation and increasing technological sophistication. To maintain and develop its monozukuri tradition of careful craftsmanship that underpins the company's internationally competitive product manufacturing, Nissan needs individuals who have an understanding of the latest technologies that go into building an automobile and well-rounded personalities with outstanding management skills. Nissan founded Monozukuri University with the aim of developing capable leaders to play a central role in monozukuri and pass down Nissan's technologies and skills to future generations—another example of Nissan offering learning opportunities and promoting activities to develop human resources. Monozukuri University consists of three organizations: Nissan Technical College, Genba Kanri (shop-floor management) School and Engineering School. 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.

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

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

#### **Education for Engineers**

Nissan developed a global training program (GTP) to be administered to all its 19,000 engineers at development centers worldwide and completed basic training of all engineers from 2012 through 2015. Furthermore, since 2016, Nissan has moved forward with plans for advanced training covering more specialized content.

#### **Education for Technicians**

To clearly spell out the production methods shared by Nissan and Renault as the APW (Alliance Production Way) and improve the day-to-day management skills of shop-floor supervisors in all the plants operated by the two companies around the world, a shared Nissan-Renault alliance framework for stratified APW training is being developed, with the goal of making the training available and operational worldwide.

#### Improving Management Quality

Nissan has worked to improve the quality of its management at the global level in order to fulfill the goals of Nissan M.O.V.E. to 2022, its midterm plan, and achieve sustainable growth. In Japan, the company has established a training framework for midlevel 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) business skills and leadership training to nurture professionals; and (3) training in on-site management to teach the importance of operational excellence and people motivation and to achieve maximum results through collaboration. These three core components of the training framework are supplemented with additional programs.

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

Olick here for more information on Nissan M.O.V.E. to 2022.

#### **Training Future Leaders**

Leadership training is growing in importance for Nissan. In the new midterm plan, Nissan M.O.V.E. to 2022, which began in the current year, it is one of the pillars supporting the success of the company's business strategies. 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 fostering human resources who can demonstrate their skills either at Nissan or elsewhere within the operations of the Alliance. These programs are offered at various development stages, including those for young employees, regional middle managers and Group senior managers. Training consists of group sessions for intensive training in business skills, action-based sessions where participants tackle issues actually facing Nissan and cultural diversity classes to promote understanding of the issues.

Staff rotations beyond divisions and regions 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 mid-level management candidates. These talent management schemes are effectively operated through regular human resource meetings among senior managers. In these meetings, outstanding human resources are identified, then development plans and succession plans are made. Nissan's strategic talent management system is globally coordinated and active at the global, regional and functional levels. Nissan aims to foster a culture of learning by establishing an environment that enables employees to take the initiative in building their careers, with the support of managers and the company as a whole.

To create an environment where employees can learn anytime and anywhere, Nissan will also expand the use of e-learning and other digital tools.

The Nissan Expert Leader System: Passing Down Nissan's Technologies and Expertise 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 2017, the system's 12th year, there were 48 employees active as Expert Leaders and 2 management-level employees as Nissan Fellows in a total of 98 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.

GRI404-1

Training Programs Achievements at Nissan Motor Co., Ltd.					
	FY2015	FY2016	FY2017		
Number of trainees	72,117	120,219	171,949		
Total hours in training	609,265	653,848	689,536		
Hours per trainee	26.9	28.8	30.6		
Trainee satisfaction (out of 5)	over 4.2	over 4.2	over 4.2		
Investment per employee (¥)	68,000	71,000	73,000		

## Human Resource Development Achievements

# LABOR PRACTICES

## RESPECTING THE RIGHTS OF WORKERS

DIALOGUE WITH EMPLOYEES

## RESPECTING THE RIGHTS OF WORKERS

- Policies and Philosophy on Respecting the Rights of Workers
- Management Respecting the Rights of Workers
- O Achievements in Respecting the Rights of Workers

GRI102-12 GRI102-13 GRI103-1 GRI406-1

## Policies and Philosophy on Respecting the Rights of Workers

Nissan has been a member since 2004 of the United Nations' Global Compact advocating universal principles on human rights, labor, the environment and anti-corruption, and promotes the management of sustainability strategies pursuant to the compact's ten principles. Nissan has expanded and enhanced its wide-ranging activities to ensure that employees' basic rights are respected.

GRI103-2 GRI406-1

### Management Respecting the Rights of Workers

Item 6 of Nissan's Global Code of Conduct, "Value Diversity and Provide Equal Opportunity," is the requirement to respect and value the diversity found among the company's employees, business partners, customers and communities, while rejecting discrimination and harassment in all forms, regardless of the magnitude. Nissan executives and employees must respect the human rights of others and may not discriminate against or harass others based on race, nationality, gender, religion, disability, age, place of origin, gender identity, sexual orientation 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.

## Achievements in Respecting the Rights of Workers

#### Diversifying Work Styles with "Happy 8"

Nissan has striven to create a workplace that lets individual employees choose from a wide range of work styles to suit their values and life needs through its "Happy 8" workstyle reform.

Olick <u>here</u> for more information on "Happy 8."

# DIALOGUE WITH EMPLOYEES

Dialogue with Employees: Policies and Philosophy

• Dialogue with Employees Management • • Initiatives for Dialogue with Employees

GRI103-1

## Dialogue with Employees: Policies and Philosophy

For a company to continuously offer new values while responding to social and business changes, it is essential for its employees to embrace the company's corporate vision and mission and consciously work toward realizing them.

Nissan is developing its internal and external communication activities with the aim of improving and maintaining its value as a company and brand, as well as promoting the achievement of short- and long-term business goals. Through global internal communication, Nissan is delivering various information so that employees will feel attachment to the company and be more engaged in tackling the challenges before them, proactively working on value-enhancing activities as "ambassadors" for Nissan.

#### Guidelines for Dialogue with Employees

Nissan established two communication guiding principles that aim to encourage higher employee engagement: "build trust between the company and the employees" and "increase employee motivation." The company utilizes various communication tools to deepen employees' understanding of Nissan's business, products and brand, as well as explain the direction in which the company is heading in order to generate employee confidence in their day-to-day jobs and the future of the company. By organizing events and offering opportunities for employees to increase their motivation and realize that they are an integral part of the company, Nissan nurtures a sense of pride in its employees which in turn will encourage them to contribute to the company's sustainable growth.

GRI103-2 GRI103-3

## Dialogue with Employees Management

For Nissan, which has more than ten thousand employees working at global operational sites, enhancing internal communication is a key task to instill the corporate mission and management strategies, to make employees feel a part of Nissan and to strengthen corporate governance.

Nissan established two guiding principles for employee engagement: "build trust between the company and the employees" and "increase employee motivation." The Global Internal Communications Department is playing a key role in enhancing communication tools, such as the corporate intranet system called WIN that delivers information to all employees, public relations materials shared with middle and senior managers and information sharing in each region. Employee-executive exchange is also held on a regular basis with the aim of building trustworthy relations. Nissan offers opportunities for employees to voice their views about communication initiatives and these opinions are shared with executives in an effort to achieve continuous improvement.

Through communication with employees and shared awareness of sustainable growth, Nissan will unify its employees into a powerful workforce and move the business forward.

#### Global Tools for Dialogue with Employees

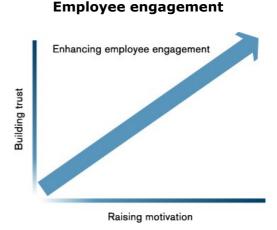
Nissan uses various tools for communicating with employees, including the WIN corporate intranet system for all employees in both Japan and global operational areas, Engagement Kits distributed to senior management with the aim of promoting workplace communication and cable TV programs that introduce Nissan's activities on video. In Japan, a printed inhouse newsletter called Nissan News is published monthly for employees at Nissan production sites. Nissan also holds some communication events, such as opportunities for executives to exchange opinions with middle and senior managers or employees. Other events give employees the chance to experience their own products and participate in company activities. The Global Internal Communications Department creates an annual action plan for better internal communication activities with the aim of improving communication both quantitatively and qualitatively. Surveys are conducted on these communication initiatives on an annual basis, as well as on individual communication activities. Survey results are reflected in future communication activities and action plans.

## Initiatives for Dialogue with Employees

For both Nissan and its employees to continue to grow in the face of globally expanding corporate activities, employees need to understand the direction in which the company is heading and implement their own actions toward the achievement of business objectives. Overcoming challenges to achieve those goals can lead to personal growth for the employee and contribute to the realization of the company's vision. Nissan is strengthening its communication with employees in order to enhance their engagement.

Strengthening Communication to Build Trust and Raise Motivation

Nissan has worked as a company to promote the Nissan M.O.V.E. to 2022 midterm plan. To achieve the plan's objectives, though, all employees are called on to embrace Nissan's corporate vision and understand the significance of Nissan M.O.V.E. to 2022. Employees' trust in the company's activities as well as its achievements is essential for the plan's success. At the same time, the company needs to motivate employees, encouraging them to take self-initiated action. Internal communication activities thus focus on building trust between the employees and the company as well as increasing the employees' motivation.



## Enhancing Communication Channels

The building of trust between a company and its employees is based on fair and open communication. Nissan discloses its statement of accounts and other business results to employees in a timely manner. Joint Renault-Nissan-Mitsubishi Alliance teams are organized in R&D, production engineering, supply-chain management, purchasing and human resources to deliver additional synergies. Information about the Alliance is shared with employees, enabling them to understand the goals and benefits derived from the Alliance. A deeper understanding of Nissan's Intelligent Mobility concept and the company's products, services and technologies is gained through timely communications that engage employee interest and boost their motivation. Nissan proactively updates its employees on its leadership in achieving a zero-emission society, development of autonomous drive vehicles,

new services using connected technology systems and other long-term projects, as well as providing test-drive opportunities and other chances for employees to participate in company activities. In order to raise awareness of its sponsorship activities, Nissan also selected employees from each region and invited them to the UEFA Champions League final 2017. Nissan is planning and holding various events so that not only selected employees but all employees can enjoy the excitement that the company provides to society through the sponsorship. Nissan is enhancing coordination among its various departments and with senior management and actively sharing information that contributes to relationships of mutual trust and higher employee motivation.

Every new fiscal year starts with the CEO delivering a state of the company address, reflecting on the past year's performance and highlighting the direction for the new year. Topics based on employee interest are also broadcast through live web conferences called Management Information Exchanges (MIE), which encourage engagement between Executive Committee (EC) members and managers.

Employee motivation is also raised through new model announcements and test-drive events, where employees gain a deeper understanding of Nissan's products and learn to convey product features and attractiveness to their friends and families more effectively. These have been well received, with participants stating that their enhanced knowledge of Nissan products has boosted their pride in the company and their work motivation, and they have been highly effective in creating "ambassadors" for Nissan.

Since Nissan introduced a corporate intranet system called WIN (Workforce Integration @ Nissan), it has been actively used to promote communication, information sharing and collaboration among employees and now it goes beyond the Nissan Group to include Nissan's major business partners as well.

In fiscal 2014, Nissan began issuing Engagement Kits which summarizes global activities, business performance and major achievements. These kits are distributed to senior managers every month and are used as communication tools for information sharing. The managers receiving this information are responsible for disseminating it in their respective departments. This is intended to promote workplace communication, deepen employee understanding and raise motivation. A printed in-house newsletter called Nissan News is published monthly for employees at Nissan production sites in Japan, letting them access needed information with no time lag.



Nissan employees selected to go to the UEFA Champions League final.

## Strengthening Communication Between Top Management and Employees

Nissan has proactively held communication events where top management and employees can directly communicate with each other. In fiscal 2017 the company held town-hall meetings in Nissan Global Headquarters (GHQ) and Nissan Technical Center (NTC). In these events, the CEO and employees had a face-to-face dialogue. The CEO also visited Nissan Motor Kyushu to see the production site and hold a town-hall meeting with employees. At the time of the final inspection issue, the CEO along with the Chief Competitive Officer (CCO) Yamauchi held four town-hall meetings to give an explanation to employees on the situation, causes, background and recurrence prevention measures. They also answered employees' questions.

Events called MTP follow-up sessions were also held. In these sessions, top management in charge explained important issues in the midterm plan, Nissan M.O.V.E to 2022, and responded to questions. In fiscal 2017, topics such as the Chinese market and light commercial vehicles (LCVs) were discussed in three MTP follow-up sessions. The live web conferences called MIE, in which EC members and managers engaged in discussions, were held six times in conjunction with financial announcements.

A total of about 6,800 employees participated in such communication events, commenting that "I was able to obtain necessary information," "top management made an effort to communicate the facts" and "I could feel the sincere enthusiasm from top management."



The CEO's town-hall meeting connected GHQ and other sites.

## Employee-Executive Exchange

In order to build trust, it is important for the company to stay aware of its employees' thoughts and opinions and ensure that they are shared with top management. Nissan has made efforts to communicate information that will lead to greater employee trust toward the achievement of its Nissan M.O.V.E. to 2022 midterm business objectives. These efforts are monitored on an ongoing basis through key performance indicators (KPIs) and reflected in internal communication activities. For these activities, the company conducts regular surveys, and the results are conveyed to company executives. The survey results are also used to run a PDCA (plan, do, check, act) cycle, with plans implemented based on decisions on whom to target and what type of additional information to communicate.



## EMPLOYEES' HEALTH AND SAFETY

- Employees' Health and Safety Policies and Philosophy
- Employees' Health and Safety Management
- Employees' Health and Safety Initiatives

GRI103-1 GRI103-2 GRI403-4

## Employees' Health and Safety Policies and Philosophy

Nissan has formulated a Basic Policy on Health and Safety and is promoting practices regarding health and safety in the workplace. In the Basic Policy, as a shared core value, Nissan touts "The health and safety of our fellow workers has top priority." Nissan's Basic Policy states that "From the top down to each employee, we recognize that we share a way of thinking that respects each individual, and with the optimization of the working environment, we proactively and continuously promote both mental and physical health, while pursing the creation of a bright and lively workplace free from accidents and illness." In accordance with the Basic Policy, Nissan promotes practices that reduce the burden on workers and make it easier to carry out their work, as well as ensuring that employees' health is a top priority. They have been established as key tenets in Nissan's companywide Basic Policy on Health and Safety.

GRI103-1 GRI103-2 GRI103-3

GRI403-1

## Employees' Health and Safety Management

Nissan has adopted a Basic Policy on Safety and Health so that all employees can focus on their work in a safe environment. It gives top priority to worker safety as well as their wellbeing 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. The midterm goal globally for the incidence of industrial accidents is to halve that of fiscal 2014 by fiscal 2019, and furthermore, to halve that of fiscal 2016 by fiscal 2022. The Executive Committee, with the executive vice president in charge of manufacturing as chair, receives a report once every three months on the situation regarding industrial accidents and also safety activities.

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.

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

#### 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.

#### Specialized Mental Healthcare

Nissan has established a specialized team led by a mental health professional to care for the mental well-being of employees. In 2005, in cooperation with external mental healthcare specialists, the company introduced the Employee Assistance Program (EAP), a mental healthcare program providing employees with consistent care covering everything from prevention and early diagnosis to treatment and recovery. Since fiscal 2007 the program has expanded to include production-line workers, giving employees and their family members access to mental-health professionals for consultations, diagnosis and counseling. Nissan also offers specialized care programs that respect employee privacy, such as the yearly "Stress Check," through which employees receive advice from a doctor via email 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 inhouse 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.

#### GRI103-3 GRI403-2

## Employees' Health and Safety Initiatives

#### 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). Applied in Japan, they call for workplace patrols in accordance with established evaluation standards to identify potential dangers and fire risks to help reduce incidents. The use of these tools has been effective in achieving these aims. Global initiatives to avoid accidents and create a safe workplace include inviting employees from Nissan facilities around the world to undergo training on workplace safety. Responsible managers and leaders also received training in SES and F-PES in preparation for the implementation of these programs at all Nissan facilities worldwide, a process that began in fiscal 2014 and was completed in fiscal 2015.

Since 2011 Nissan has been systematically carrying out risk-prediction training at plants in Japan to ensure that individual workers are aware of the risk of accidents and to help prevent accidents. This training 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.

Nissan has established standards for reporting on work accidents or outbreaks of fire that occur in any of the production sites and these standards are applied globally. If any serious work accidents such as fatalities, or outbreaks of fire that may have an impact globally occur, the person in charge where the accident or fire occurred must report without delay to Nissan Motor Co., Ltd. (NML). NML will dispatch information and measures as well as instructions to each company site, based on the report. It is hoped that this will lead to advance prevention of similar disasters or accidents.

There were no fatal accidents involving Nissan employees globally in fiscal 2017. However, in fiscal 2011, 2012 and 2013 there was one fatality each year in South Africa, Spain and North America. In fiscal 2016, two fatal accidents occurred; one in North America and one in India. Nissan investigated these fatal accidents and has implemented strict countermeasures to prevent such accidents from happening again at any of its plants. Nissan monitors lost-time injury frequency rates\* of all its factories and the figure is lower than that of the average for the automobile industry.

\*Total lost-time injury cases ÷ total working hours × 1 million

#### Global Occupational Accident Trends Lost-Time Injuries Frequency Rate



Rate\*

Lost-Time Ergonomics-Related Injuries

\*Total lost-time ergonomics-related injury cases ÷ total working hours × 1 million

#### 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. In workplaces where summer temperatures can be high, for example, Nissan has installed internal cold-air ducts and ensured there are set breaks to drink water, particularly in locations with considerable workloads. This is part of constant improvements to allow employees to work in a comfortable environment.

# COMMUNITY ENGAGEMENT

- Community Engagement Policies and Philosophy
- Community Engagement Management
- Social Contributions Achievements in FY2017

GRI102-11 GRI103-1

GRI103-2 GRI203-1

## **Community Engagement Policies and Philosophy**

In addition to delivering innovative, exciting vehicles and outstanding services to customers worldwide, Nissan believes it is important to play an active role as a community member, applying its special characteristics 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 maximize the success of their initiatives. In line with Nissan's corporate social contribution policies, regional offices and affiliates work on initiatives that address issues relevant to their operations and the communities in which they operate. Nissan's Approach to Community Engagement

Nissan reviewed its policies for social contribution activities in 2017, deciding to push forward with activities focused on the three areas of: zero emissions, zero fatalities and zero inequalities. In addition to zero emissions and zero fatalities, areas where any automotive manufacturer should make sincere efforts, Nissan is promoting zero inequalities (in other words, diversity) as an important corporate value with the aim of realizing a cleaner, safer and more inclusive society where everyone is given equal opportunities. The company will not only provide financial assistance for activities in these areas but also ensure that those activities are "distinctly Nissan," making full use of its automotive heritage, expertise, products and facilities. Nissan emphasizes communicating and working with specialized nonprofit and nongovernmental organizations that have great expertise in their fields to ensure that its social contributions are effective. Nissan's local companies support employee involvement in social contribution activities.





#### GRI103-2

### Community Engagement Management

Nissan's production sites have expanded globally, increasing the company's engagement with various communities through its businesses. Nissan is active in promoting social contribution activities and recognizes that contributing to the development of communities by sharing its own management resources also enhances the business environment and promotes market growth. The Sustainability Development Department at Nissan's Global Headquarters in Japan formulates policies, and then management decides which to set in motion. Nissan is presently developing a wide range of activities to meet the needs of regions centered on the three focus areas of zero emissions, zero fatalities and zero inequalities set forth in the policy revision of 2017.

## **Company Organization for Community Engagement**

The Sustainability Development Department at Nissan's Global Headquarters in Japan is responsible for developing Nissan's corporate social contribution policies, which are discussed and approved by the Global Sustainability Steering Committee and shared throughout Nissan's global operations. These corporate policies provide the basis on which initiatives are implemented across the company worldwide.

Three Focus Areas for Nissan's Social Contributions Program

#### Zero Emissions

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

In 2017 Nissan expanded partnerships with international environmental protection organizations. Not only has Nissan started a forest conservation program in Indonesia in collaboration with Conservation International, an environmental NGO, it has also engaged in educational and awareness activities with respect to climate change coordinated with the environmental conservation organization WWF Japan.

#### **Zero Fatalities**

In addition to making vehicles safer through autonomous driving technology, Nissan also promotes road safety through activities to raise the safety awareness of drivers and pedestrians and to protect the socially vulnerable, including children and senior citizens.

#### **Zero Inequalities**

Recognizing its crucial role in boosting corporate competitiveness, Nissan has adopted diversity as a management strategy. Nissan's social contribution activities based on this insight have such goals as mitigating poverty, providing assistance to the financially and socially disadvantaged and sending emergency relief to disaster-stricken communities. In 2017 Nissan entered a cooperative relationship with the NGO Care International Japan and commenced a new educational program in Thailand, in addition to existing humanitarian efforts in North America, Asia and Oceania in collaboration with Habitat for Humanity.

#### Nissan as a Community Member

Nissan aspires to be a good corporate citizen that people are glad to have in their community. As such, it strives to be a valuable member of and active contributor to local communities wherever it does business. The company provides support to communities in a variety of ways, such as by assisting with community events, sponsoring neighborhood cleanups and other environment-improvement activities near Nissan facilities and opening those facilities for public tours. Many employees actively participate as volunteers.

GRI103-3 GRI201-1 GRI203-2

## Social Contributions Achievements in FY 2017

Global social contributions (FY 2017): ¥17.5 billion

- Expenses for implementing philanthropic programs (labor costs are excluded)
- Monetary donations, sponsorship fees and membership fees spent for philanthropic purposes
- · In-kind donations included as equivalent monetary value

	Activity costs	Monetary donations	Donations of items (value)	Sponsorships, etc.	Total
Amount (¥ million)	783	608	125	237	1,753
% of total	44.7	34.7	7.1	13.5	100

#### Breakdown of FY 2017 social contributions (Nissan Global)

totai	44.7	34.7	7.1 13.5	I.	
		Disaster	Contribution in FY 2017		
		Torrential rain in Northern Kyushu (Japan)	<ul> <li>¥5.0 million donation from Nissan Motor a Nissan Motor Kyushu to the Japanese Red Cross Society.</li> <li>¥444,887 donation from employees of Nissan Motor Kyushu to the Japanese Red Cross Society.</li> <li>Volunteer activities in the disaster-stricken area by employees of Nissan Motor Kyushi</li> </ul>		
	Donations for disaster relief	Hurricane (the U.S.)	<ul> <li>\$150,000 donation from I ca to the American Red C</li> <li>20 Titans loaned, free of c</li> <li>North America to the city</li> <li>Matching of a \$15,765 ir Nissan Group of North America n NGO.</li> </ul>	Cross. charge, from Nissan of Houston. n donations from	
		Hurricane (Puerto Rico)	Two vehicles donated by ca to the American Red C		
		Earthquake in central Mexico (Mexico)	• Relief supplies valued at by Nissan Mexico to an N		

#### Zero Emissions

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

Since 2007 Nissan has put its automobile manufacturing knowledge and technologies to work by conducting school-visit programs. The programs target older elementary school students and are delivered by Nissan employees.

One educational program is the Nissan Waku-Waku Eco School,\* which helps participants to deepen their understanding of global environmental issues. Participants also learn about Nissan's environmental efforts and experience the latest in environmental technology, including model car experiments and test rides in the Nissan LEAF electric vehicle. As well as teaching participants about environmental issues, the program encourages them to consider their own daily activities.

This program has been so well received that Nissan has increased the number of Eco School classes in Japan. In fiscal 2017, 10,650 pupils mainly in Kanagawa Prefecture attended the program. Since the launch of the Nissan Waku-Waku Eco School, a total of about 62,000 children had participated as of the end of March 2018. Employees from many divisions have participated in a company scheme certifying them as teachers in the program. A total of 416 employees, mainly from the engineering division, volunteered to support the classes. Employees not only visit elementary schools but also hold lectures in the guest halls at Nissan's Tochigi, Iwaki, Yokohama, Oppama and Kyushu plants.

Outside Japan, Nissan Motor Manufacturing (UK) Ltd. in Sunderland runs a popular educational program about the environment for children from local primary schools. In fiscal 2017, 958 children took part in the program.

In China, Nissan (China) Investment Co., Ltd. (NCIC) and three other companies offer educational opportunities. Nissan has expanded the scale of lessons utilizing the Internet, and in fiscal 2017 there were more than 52,000 participants.

• \*Click here for more information on the Nissan Waku-Waku Eco School.

#### Partnership with World Wide Fund for Nature Japan (WWF Japan)

Nissan has entered into a partnership with the environmental conservation body WWF Japan to support its climate change program. In March 2018 Nissan supported WWF Japan's environmental awareness event Earth Hour 2018, with Nissan companies across the world taking part in a symbolic lights-out event. This was Nissan's first sustainability initiative on a global scale. In Japan, Nissan also supported WWF Japan CO<sub>2</sub> zero-emission events held in Tokyo and Yokohama by providing the use of two Nissan LEAFs charged with renewable energy, contributing to the operation of the zero-emission events.



Earth Hour 2018 event held at Tokyo Skytree Town.

#### Partnership with Environmental NGO Conservation International (CI)

Nissan has started working with the environmental NGO Conservation International (CI) to restore forests around Indonesia's Mount Agung, a region that has seen its environment deteriorate noticeably despite being the source of water for the urban area of Bali. This initiative is a comprehensive approach that seeks to improve the environment around the river and coastal regions by preserving forests in the mountainous region; it is also expected to contribute to the development of communities in the long run. Through Nissan Indonesia, Nissan donated a NAVARA pick-up truck to CI's Indonesian office to use for preservation activities, and it has also provided financial support.



Planting trees in the Mount Agung area. (© Conservation International/Photo by Hanggar Prasetio)

#### Zero Fatalities

#### Partnership with the Federation Internationale de l'Automobile (FIA)

Nissan is an official supporter of FIA Action for Road Safety,\* a campaign for raising public awareness for safer roads advocated by the Federation Internationale de l'Automobile (FIA). Nissan works to widely publicize the campaign's message about the importance of safe driving and promotes the FIA Golden Rules, a compilation of rules for road safety.

Oclick here for more information on FIA Action for Road Safety.

#### "Hello Safety Campaign" to Protect Children

Since 1987 Nissan has collected donations from employees for the "Hello Safety Campaign," which the company launched in Japan in 1972 to contribute to the promotion of traffic safety awareness campaigns near its places of business. In fiscal 2017 donations reached about ¥1.04 million. As well as this contribution, gifts to help prevent traffic accidents were sent mainly to children in the neighborhoods of Nissan's places of business through regional traffic safety associations, municipalities and other organizations.

#### Zero Inequalities

#### Educational Program Launched in Cooperation with NGO CARE International

Nissan started an educational "Youth Leadership Development Program" for students in junior high and high schools in Ayutthaya and Rayong provinces in Thailand. In classes held in cooperation with local schools, students learn leadership, teamwork and other qualities necessary for leaders responsible for developing communities. Science, technology, engineering and mathematics (STEM) content is also incorporated in the lessons. In conducting classes, the focus is placed on supporting female students in particular, and Nissan Motor Thailand participates in and cooperates with program operations.



Youth Leadership Development Program.

#### Partnership with Habitat for Humanity

Nissan North America (NNA) started collaborating with Habitat for Humanity in the wake of Hurricanes Katrina and Rita, which struck the American Gulf Coast in 2005. Habitat for Humanity, an international aid organization that gives people hope by helping them build or improve their homes, has a vision of "a world where everyone has a decent place to live." The nonprofit organization tackles poverty and the associated problems of low-quality housing in developing countries by working to construct homes and support self-reliance in over 70 countries across the world. Since 2006 Nissan North America (NNA) has donated about \$15.5 million and 146 vehicles and has logged more than 98,000 work hours from employee volunteers.

Nissan expanded the partnership in 2012, broadening operations beyond North America to various Asian countries, with Nissan's regional companies conducting construction and hygiene improvements and building disaster-resistant communities. In fiscal 2017 Habitat's activities were expanded to the Philippines and Myanmar.



A house being built in Myanmar.

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

#### Employee Volunteer Activities in Hirono and Naraha, Fukushima Prefecture

In response to the Great East Japan Earthquake of March 11, 2011, Nissan has provided various kinds of support, from immediately after the disaster through to reconstruction activities, and has seen strong employee participation. In fiscal 2017 Nissan continued support activities from the previous year in the district of Futaba, Fukushima Prefecture, with about 30 employees from several Nissan facilities attending. Together with the Iwaki OtentoSUN Enterprise Cooperative, based in Iwaki, Fukushima, Nissan employees engaged in various activities, including preparing a disaster-prevention green belt, manually assembling solar panels, maintaining organic cotton fields in Hirano and operating a study tour in Naraha.



Volunteer activities in Hirono and Naraha.

#### Bringing Smiles to Children in Disaster-Stricken Areas

The Nissan President Fund, launched in 2011 with the aim of supporting children in areas affected by the Great East Japan Earthquake, was renamed the Nissan Smile Support Fund in 2017. The fund offers programs that meet the changing situations of the disaster-stricken areas, such as free schools, places to go after school, learning venues for deepening regional understanding, play programs that bring smiles back to children and hands-on nature experiences. Programs are conducted by 10 NPOs that are independently active in Iwate, Miyagi and Fukushima prefectures.

#### Addressing Other Natural Disasters

#### Support for Northern Kyushu After Torrential Rain (Japan)

Nissan Motor Corporation (NML) and Nissan Motor Kyushu Co., Ltd. (NMK) made a total donation of ¥5.0 million to the Japanese Red Cross Society for people affected by the torrential rain of July 2017. In addition, 32 employees of Nissan Motor Kyushu conducted a total of eight volunteer activities.

#### Relief to Regions Affected by Devastating Hurricanes (Puerto Rico, The Americas)

As relief to the regions affected by Hurricane Harvey in August 2017, Nissan North America (NNA) made a donation of \$150,000 to the American Red Cross. NNA also loaned 20 Titans free of charge to assist the city of Houston, Texas, in emergency relief activities. To support the regions affected by Hurricane Maria in September 2017, Nissan Latin America donated two QUESTs to the Puerto Rico branch of the American Red Cross.

#### Support for Regions Hit by The Central Mexico Earthquake (Mexico)

To support regions hit by the earthquake of September 19, 2017, Nissan provided relief supplies equivalent to ¥8 million to a local NGO.

#### Sponsorship of Disability Sports (Japan)

In December 2017 Nissan sponsored the Nissan Cup Oppama Championship 2017 (the 18th National Wheelchair Marathon) in Yokosuka, Kanagawa Prefecture, co-hosting the event with other local organizations.<sup>\*1</sup> The contest has been held since 2000 with the aim of increasing the profile of disability sports, improving the level of competitors, engaging people in the area and building caring communities. During the road race between Grandrive, Nissan's test driving center at the Oppama Plant, to Oppama Station, 619 volunteers, including company employees and local community residents, were on hand to support the event with such activities as cleaning up the course.

The Nissan Technical Center (NTC) and Nissan Advanced Technology Center, in the city of Atsugi, Kanagawa Prefecture, contribute to the local community by promoting activities including neighborhood cleanups and cooperation with local events. As part of these efforts, since 2012 NTC has sponsored the Nissan Fureai Road Race.<sup>\*2</sup> This contest, for both visually impaired and sighted competitors, is held on the NTC grounds, creating a safe environment in which participants are able to compete. In the seventh competition, held in March 2018, 772 runners, including 112 visually impaired people, took part.

O 1. Click <u>here</u> for more information on the Nissan Cup Oppama Championship (Japanese only).

●2. Click <u>here</u> for more information on the Nissan Fureai Road Race (Japanese only).

#### Outreach to Pupils to Talk About Monozukuri (Japan, China, U.K. and Other Countries)

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

In Japan, the message of monozukuri is shared through school-visit programs, the Nissan Monozukuri Caravan and the Nissan Design WakuWaku Studio, where Nissan employees visit elementary schools.\*1 Some 22,000 children participate in the programs every year. In China, Nissan (China) Investment Co. and other regional companies hold classes. The Nissan Monozukuri Caravan also operates in the United Kingdom at the Sunderland Plant, the program runs five days per week during school terms, welcoming more than 4,500 primary pupils per year.

The Nissan Skills Foundation\*2 was established in 2014. As of June 2018, it has engaged more than 35,000 students from schools across the region through various activities to inspire the engineers and manufacturers of the future. Through the F1 in Schools global competition, it supports local teams with equipment, resources and knowledge. At the 2017 world finals, five of the U.K. finalist teams had been supported by Nissan. A core program for the foundation is Industrial Cadets, a nationally recognized program aimed for pupils aged 13–14 to engage with manufacturing and engineering professionals. More than 1,200 students have been through the program. The foundation also fosters diversity through the Girls in Monozukuri, Manufacturing and Engineering (GIMME) and GIMME Booster programs. These introduce young girls to available career options and help improve their chances of getting through the recruiting process.

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

● \*Click <u>here</u> for more information on the Nissan Monozukuri Caravan and the Nissan Design Waku-Waku Studio.

#### Education Support for Children in Need (China)

Since 2013, Nissan (China) Investment Co., Ltd. (NCIC) has operated the Nissan Dream Classroom educational program, which helps elementary and middle school pupils. The program has gradually expanded its area of operation and the scope of its classes to include such topics as the environment, monozukuri, design and the basics of automotive engineering. A total of four companies in China began holding these classes in 2015, expanding the scale each year and actively engaging in educational programs. In 2017 NCIC launched the Nissan Dream Classroom Special Edition in Beijing. The Special Edition program is especially designed for students with hearing and linguistic disorders, enabling them to experience the appeal of automotive technology. This was the first cooperation between an automotive enterprise and a special education school in China.



Nissan Dream Classroom Special Edition in Beijing.

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

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

In Tennessee, where Nissan has two major assembly plants, Nissan and its employees support the Music City BEST (Boosting Engineering Science and Technology) Robotics Competition in Nashville. Student teams design and build working robots from standard kits of simple building materials and then compete to perform specific tasks in three minutes. In fiscal 2017 a total of 479 students from 16 schools took part, and 37 Nissan employees volunteered as team mentors or competition judges. In this project-based STEM program the students solved real-world science and engineering problems, helping them develop technological literacy skills that may shape their long-term education and career direction. NNA also supported the running of the Lipscomb University/Nissan BisonBot Robotic Summer Camps 2017 at Lipscomb University in Tennessee. A total of 148 students, aged 5 to 16, took part in the camps, studying age-appropriate robotics technologies.

#### Foundation Support Activities (U.S. And Australia)

In the United States, Nissan supports communities through the Nissan Foundation, which funds educational programs that encourage people to value the cultural diversity that exists within American society. The Nissan Foundation, established in 1992, has contributed over \$10 million to more than 100 nonprofit organizations across the country. In 2017 the foundation donated \$710,000 to 29 U.S. organizations In April 2016 Nissan Australia (NMA) launched the Nissan Australia Foundation to support philanthropic activities through funding. Since fiscal 2017 it has funded small and medium-sized Australian organizations, helping to expand their activities and promoting STEM and traffic safety education. The foundation has adopted a support system for encouraging employees to take part in volunteer activities and to make donations.

#### Nissan Global Foundation (Japan)

The Nissan Global Foundation pursues the vision of aiming to realize a society with a promising future through fostering human resources. Working toward this goal, the foundation conducts training programs.

A key part of this outreach is a concerted effort to enhance science education. Support recipients include elementary and junior high schools, as well as research groups that are implementing educational programs to foster logical and scientific thinking skills among children. The foundation grants ¥700,000 per project for teaching materials that provide two years of practical use. In addition, the foundation grants "Science Education Awards" to schools with the best performance in the program with the aim of making schools compete with one another and keep their activities fresh.

Another important foundation activity is the Global Resilient Leadership Program, a course for training strong leaders who can instigate change in an unpredictable environment. Top business school professors from Japan, the United States and Europe explicate case studies of change at Nissan and other global corporations. Nissan Chairman Carlos Ghosn and Member of the Board of Directors Toshiyuki Shiga speak about their experiences and the essence of leadership.

As of the end of March 2018, the seminars have been conducted seven times with the participation of about 210 executive candidates from a range of industries, including finance, logistics, manufacturing and information. These participants are now applying their acquired leadership knowledge back at their organizations.

Olick here for more information on the Nissan Global Foundation.

#### 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.

Olick here for more information on the Nissan Institute.

# GOVERNANCE

- O GOVERNANCE POLICIES AND PHILOSOPHY
- O CORPORATE GOVERNANCE
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## CORPORATE GOVERNANCE POLICIES AND PHILOSOPHY

To be a sustainable company, Nissan must display a high level of ethics and transparency, as well as a strong foundation for the organization. It is also expected that the company will actively disclose its initiatives to this end. Nissan has extensive global operations with numerous stakeholders around the world. It is essential that the company continue to earn their trust while ensuring the high ethical standards and compliance of all employees. Rapid technological advances are transforming every industry, including the automotive industry, and the global economy is undergoing a period of great change. The risks that companies face are becoming ever more complex and require finely tuned responses. Nissan has established a corporate governance system that maintains business transparency. The system allows Nissan to implement various monitoring systems, as well as assess and effectively manage risks that have the potential of preventing the company from achieving its business goals. In addition to carrying out cooperation among sites in the regions in which it operates, Nissan has set up global management systems and provides relevant training programs to its employees and business partners.

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

# CORPORATE GOVERNANCE

O Corporate Governance System in Detail O Avoidance of Conflict of Interest

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### Corporate Governance System in Detail

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

Also, Nissan has established a corporate governance system that maintains business transparency. The system allows Nissan to implement various monitoring systems, as well as assess and effectively manage risks that have the potential of preventing the company from achieving its business goals. In addition to carrying out cooperation among sites in the regions in which it operates, Nissan has set up global management systems and provides relevant training programs to its employees and business partners.

#### Board of Directors System

The Board of Directors includes outside directors and makes key decisions on important company operations, as well as supervising individual directors' execution of duties. Nissan's Board of Directors is compact, enabling effective and flexible management, with authority regarding operations clearly entrusted to corporate officers and employees. Additionally, Nissan has established focus committees whose chairs are responsible for carrying out discussions on important company matters and daily operations.

• \*Click here for more information on the Board of Directors.

#### Basic Principles of the Internal Control System

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

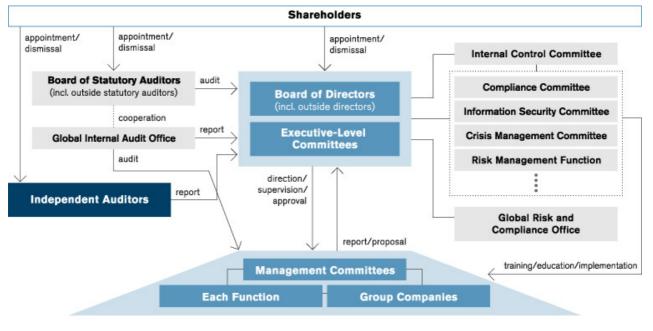
#### Audit System

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 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 Risk & Compliance Office and the Global Internal Audit Office, making use of this information for their own audits.

#### Independent Internal Audits

(As of April 2018)

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.





## Avoidance of Conflict of Interest

Regarding a conflict-of-interest transaction between a director and the company, the regulations of the Board of Directors stipulate that approval of the Board of Directors is necessary, as well as a post-facto report to the board of important facts associated with the transaction.

O Click here for more information on Corporate Governance Report.

## RISK MANAGEMENT

💿 Risk Management Systems 🛛 💿 ESG Risk Management

#### GRI102-30

### Risk Management Systems

Risk management must be a real-world activity that produces concrete measures. Based on its Global Risk Management Policy, Nissan carries out activities on a comprehensive, groupwide basis.

To respond to changes in its business environment, Nissan has set up a department in charge of risk management that carries out annual interviews of corporate officers, carefully investigating various potential risks and revising the "corporate risk map" in line with impact, frequency and control level.

The Executive-Level Committees make decisions on risk issues that must be handled at the corporate level and designate "risk owners" to manage the risks. Under the leadership of these owners, the company designs appropriate countermeasures. At the end of each fiscal year, the Chief Internal Audit Officer (CIAO) assesses the control level of each risk and determines the effectiveness of each risk management activity. Finally, the board member in charge of internal control regularly reports to the Board of Directors on progress. With respect to individual business risks, each division is responsible for taking the preventive measures necessary to minimize the frequency of risk issues and their impact when they do arise as part of its ordinary business activities. The divisions also prepare emergency measures to put in place when risk factors materialize. Nissan Group companies in Japan and overseas are strengthening communication to share basic processes and tools for risk management, as well as related information, throughout the Group.

In addition, Nissan has created an area on its intranet called "Corporate Risk Management." Information relating to risk management is also distributed to subsidiaries in Japan, North America, Europe and other overseas regions, as well as to major affiliated companies. The business environment in which the company operates has been increasingly volatile in recent years, including such aspects as the widespread adoption of new technologies and growing geopolitical risks. Nissan will continue to bolster its activities in this area so it can appropriately meet these changes.

#### GRI418-1

#### Protecting Personal Data and Reinforcing Information Security

Nissan shares its Information Security Policy with Group companies worldwide as a basis for reinforced information security, implementing via the Information Security Committee measures enhanced through the PDCA cycle. The company reliably addresses issues by identifying internal and external information leaks as they occur worldwide and reinforces information security on a timely basis. To thoroughly educate and motivate employees to adhere to relevant policy, the company institutes regular in-house educational programs. Moreover, Nissan recognizes its social responsibility to properly handle customers' personal information in full compliance with the respective personal information protection law in each region. Nissan has set up internal systems, rules and procedures for handling personal data. All Group companies are fully enforcing these processes.

Olick here for more details on Risk Management.

#### GRI102-29 GRI102-33

## ESG Risk Management

Nissan sees risks related to environmental, social and governance (ESG) factors---that is, "product strategy," "product quality," "response to environmental issues and climate change" and "compliance and reputation"--- as issues involving business strategy and the maintenance of competitiveness and therefore promotes risk management in the Group as a whole based on the Global Risk Management Policy.

Regarding 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. 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. Regarding product quality, in addition to such activities as quality assurance for new model projects and day-to-day quality improvement activities, the company has introduced and operates a "Quality Risk Management" framework. The 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. Regarding response to environmental issues and climate change, in order to address diversifying environmental issues and promote comprehensive environmental management on a global basis, the Global Environmental Management Committee (G-EMC), which is cochaired by a board member and convenes twice a year, and the Environmental Management Committees (EMCs) in six regions worldwide confirm the progress of activities and decide companywide policy and the content of reports to the Board of Directors. Regarding compliance and reputation, the company's compliance with laws and ethical standards is monitored by regional and local compliance committees, which report to the Global Compliance Committee. Nissan also has implemented a globally integrated whistleblowing system, which allows employees to report suspected compliance issues to Nissan's management. In addition, Nissan has created sets of internal rules and policies globally covering the prevention of insider trading, personal information management, information security and prevention of bribery and corruption. Nissan makes efforts to prevent noncompliance and reputation risk to the company by implementing various education and training programs.

Olick here for more details on Risk Management.

# COMPLIANCE

Anti-Bribery
 Observance of Business Ethics
 Security-Related Export Controls
 Tax Transparency

Nissan understands that acting with integrity and with high standards is of paramount importance not only because it is the right thing to do, but also because it allows all employees to perform at the highest levels. Nissan expects all employees to do their jobs, maintaining the highest ethical standards. To raise compliance awareness throughout the company, Nissan has established a Global Risk & Compliance Office, as well as specialized departments, and has appointed officers to promote compliance in each region where it operates.

### Anti-Bribery

GRI205-1

#### Anti-Bribery : Policies and Philosophy

Nissan does not tolerate corruption of any kind, whether individual or systemic, committed by a company or a government. The Nissan Global Anti-Bribery Policy\* addresses issues all around this broad field. Different cultural contexts may result in what seem to be gray areas, and Nissan respects local customs and traditions, but corrupt practices are never acceptable.

• Click here for more information on the Nissan Global Anti-Bribery Policy.

#### GRI205-2

#### Anti-Bribery : Management

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

Moreover, all Group-affiliated companies have introduced their own codes based on the Global Code of Conduct. The Code of Conduct is supported by training courses to establish a full understanding of the content. The overall policy management strategy was redesigned in fiscal 2016 in order to support the promotion of compliance knowledge, including the creation of a Policy on Policies and related standardized procedures. With this enhanced process, Nissan seeks to ensure across-the-board understanding, making sure all employees are fully aware of Nissan's policies and have the ability to act appropriately when faced with compliance issues.

Nissan has created a series of internal regulations that are applied globally, covering areas such as decision-making, insider trading, personal information management, information security, bribery and corruption and use of social media. With these policies in place, Nissan is working to heighten awareness and reduce infractions.

A number of education programs to promote compliance are held regularly for employees in all regions in which Nissan operates. For example, training sessions based on the Global Anti-Bribery Policy have been conducted in all regions.

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GRI307-1 GRI419-1

#### **Observance of Business Ethics**

Observance of Business Ethics : Policies and Philosophy

#### Employees and Compliance

The foundation of Nissan's Sustainability promotion is based on each employee's ability to do his or her job with a high level of integrity. In 2001, the company produced the 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. Nissan has also produced guidance for directors and corporate officers regarding compliance, holding regular seminars and educational activities to ensure strict adherence to the rules. Under the oversight of its Global Compliance Committee, the company has established regional compliance committees in each region where it operates to form a system for detecting and deterring illegal and unethical behavior. Nissan is working with all regions and bases of operation to ensure full awareness of compliance issues and to engage in prevention of illegal activities. The company has processes in place to take appropriate disciplinary actions against those who violate or infringe the Global Code of Conduct or the law. Nissan established a Global Risk & Compliance Office to ensure more rigorous compliance management. In addition, to enhance compliance at the regional level, stand-alone, independent, regional compliance officers have been hired in the Japan, A&O, LATAM, AMI, Europe and North America regions.

• Click <u>here</u> for more information on the Global Code of Conduct.



Fiscal 2017 Global Compliance Committee Organization (As of March 2018)

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

## Global Code of Conduct

The Global Code of Conduct contains the core principles for carrying out Nissan's business activities with honesty and integrity and in full compliance with the established laws and regulations in all locations in which Nissan operates. The following standards apply to all employees in Nissan Group companies, and all employees are charged with responsibility to uphold and extend this Code of Conduct. The Code of Conduct is revised at least once every three years, like all policies within Nissan, to ensure that it evolves together with the Company and society. In case of major changes to laws or other major factors in the Code of Conduct, immediate changes besides the regular review are conducted. The latest update was carried out in 2017, when the Company decided to proactively include both the safety of employees and customers as a further key pillar of the Code of Conduct. Throughout fiscal 2017, executive messages regarding the Global Code of Conduct were delivered to employees through Nissan's intranet. Among the topics covered were areas such as workplace safety, corruption prevention and information security.

#### ①Comply with All Laws and Rules

Nissan employees are expected to follow all laws and regulations of the country in which they work as well as all Company policies and rules.

#### ②Promote Safety

Nissan is committed to employee safety and wellness. Nissan employees are expected to engage in safe work practices to promote a healthy work environment. Nissan is also committed to the safety of our customers and their passengers and Nissan employees are expected to continually promote safety of Nissan products.

#### ③Avoid Conflicts of Interest

Employees are expected to act in the best interest of Nissan. It is not permitted for employees to behave, act, or use information in a way that conflicts with Company interests. Furthermore, employees must attempt to avoid even the appearance of a conflict of interest. @Preserve Company Assets

Nissan employees are accountable for preserving and safeguarding Company assets. The unauthorized or improper use of Company assets, including funds, confidential business information, physical property and intellectual property, is prohibited. (5)Be Impartial and Fair

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

6 Be Transparent and Accountable

Accounts and records shall be maintained with integrity. Nissan employees shall make accurate, transparent, timely and appropriate disclosures of the Company's business activities to our stakeholders, including shareholders, management, customers, other employees and local communities.

⑦Value Diversity and Provide Equal Opportunity

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

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

9Be 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. Employees are encouraged to use the SpeakUp system to report their suspicions. Employees who act in good faith and report suspected violations will be protected from retaliation.

#### Observance of Business Ethics : Management

#### Internal Reporting System for Corporate Soundness

To promote thorough understanding of compliance among employees worldwide and to facilitate sound business practices, Nissan established a globally integrated reporting system. Through this system, employees can ask questions or voice concerns to the company, thereby improving workplaces and operations. The system introduced under the name "SpeakUp" facilitates, where allowed by law, anonymous reporting by and two-way confidential communication with employees and other stakeholders. It is available 24 hours a day, 365 days a year, in more than 20 languages. Employees are encouraged to report violations of the Code of Conduct or other company rules and are protected from retaliation by Nissan's non-retaliation policy, which is a cornerstone of the Compliance Program.

In fiscal 2017, 1,022 issues and questions were reported globally. Among those, 335 compliance-related matters were identified. This is an increase over the previous year. This trend is as expected, and indicates that the compliance programs are working effectively and more employees have started to raise their concerns using the internal reporting system.

## Security-Related Export Controls

To help maintain both national and international peace and security, Nissan thoroughly complies with export control laws and regulations in Japan and other countries and regions where it operates to prevent sensitive goods and technologies from reaching sponsors of terrorism, as well as corporate espionage or human rights violations. In line with these rules, Nissan implements export controls under an independent system headed by its representative executive. Specifically, working together with business owners, the Export Control Global Secretariat sets control and monitoring mechanisms to ensure compliance with security-related export controls. The company strictly applies this process to its operations. Nissan is responsible for compliance with all regulations related to export controls of goods, software and technologies in all areas in which it operates. In 2017, the company formulated its Global Export Regulatory Compliance Policy to ensure proper compliance with such regulations Group-wide. Nissan has developed related policies in accordance with the different countries where Nissan sites are located, and in fiscal 2017, Nissan issued new country trade and export regulatory compliance policies for Russia and South Africa in addition to existing ones in Japan, the US, Canada and Mexico. Nissan is responding in a timely manner to developments toward export control regulations in various countries including the large scale amendments to the EU export control list, and the strengthening of export control regulations in China, Thailand and India.

With the overall aim of improving the level of internal control, Nissan strives to conduct regular risk-assessment activities in connection with export controls in each region, to create monitoring mechanisms that are in step with regulatory requirements and business demands and to continually improve its operations. To make employees more familiar with compliance risks, Nissan is reviewing its training system and content, including compliance with relevant customs and trade laws. From fiscal 2018, Nissan will begin training in Japan based on the new system, and intends to later extend this training to other regions.

Nissan has been tackling export control of advanced technology on a global level, to prepare the future of our company. To hasten the implementation of its global export control compliance programme, Nissan has been promoting export control of advanced technologies, such as autonomous driving and connected-car technologies, at various Nissan sites around the world, starting from Silicon Valley advanced research results. At its development sites in Japan, Nissan is improving the sensitive goods, software and technologies' classification process using R&D mainstream systems, and by making the procedures for export controls integral part of development and design operations, the company is striving to strengthen its compliance.



#### GRI419-1

### Tax Transparency

Based on the Global Code of Conduct, Nissan is committed to complying with laws and related regulations in all countries in which it operates. Nissan complies with tax laws in all countries as a matter of course, conducting its business activities mindful of tax guidelines published by international organizations like the Organization for Economic Cooperation and Development.

As a global company, Nissan recognizes that the rules and tax system are different in each country, and takes the interests of governments, tax authorities, shareholders and other stakeholders into consideration.

Nissan is transparent about its approach to tax. It regularly reports on its tax policy in a candid and straightforward way and is committed to being transparent to local tax authorities.

#### Tax Transparency Management

The Global Code of Conduct sets out the kind of integrity Nissan expects from employees. Any issues with tax authorities are reported through a tax compliance administration tool to Nissan Global HQ in Japan. Similarly, the structured Delegation of Authority controls review and authorization by local/regional/global senior management depending on the underlying value of the decision. This ensures both local and regional oversight of decision-making. Nissan has an obligation to its shareholders to optimize tax efficiencies. However, Nissan does not use contrived structures or enter into noncommercial arrangements to reduce its tax burden.

Oclick here for more information on Nissan UK tax strategy.

# SUSTAINABILITY DATA

## O CORPORATE PROFILE

- **O EMPLOYEE DATA**
- O ENVIRONMENTAL DATA

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# 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, 2018)	138,910
	R&D: 16 countries/areas (Japan, U.S., Mexico, U.K., Spain, Belgium, Germany, Russia, China, Taiwan, Thailand, Indonesia, South Africa, Brazil, India, Vietnam; total of 44 sites)
Global Network (as of March 2018)	Design: 7 countries (Japan, U.S., U.K., China, Brazil, Thailand, India; total of 8 sites)
	Automobile Production: 41 bases in 20 countries/areas (Total includes Nissan's consolidated vehicle assembly plants and nonconsolidated assembly plants. Plants for OEM production are included, except for those providing OEM vehicles to Nissan in Japan [Fuso, Suzuki, Mitsubishi Motors, etc.].)

### GRI102-7

## **Financial Data**

		Hund	(FY) Hundred Million YEN	
	2015	2016	2017	
Net sales	121,895	117,200	119,512	
Operating income	7,933	7,422	5,748	
Ordinary income	8,623	8,647	7,503	
Profit before tax	7,329	9,652	7,107	
Net income attributable to owners of the parent	5,238	6,635	7,469	
Capital expenditure	4,790	4,693	4,854	
Depreciation	4,019	3,808	3,842	
Research and development costs	5,319	4,904	4,958	

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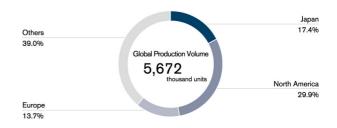
Globalsales volume and production volume

			(FY) thousand units
	2015	2016	2017
Global Sales Volume	5,423	5,626	5,770
Japan	573	557	584
China	1,250	1,355	1,520
North America	2,011	2,130	2,091
Europe	754	776	756
Others	835	808	819
			thousand units
	2015	2016	2017
Global Production Volume	5,203	5,654	5,672
Japan	849	1,015	986
North America	1,825	1,855	1,694
Europe	661	730	777
Others	1,868	2,054	2,215

Oclick here for more information on Financial Data.

FY2017 figures







# EMPLOYEE DATA

				(FY)
		2015	2016	2017
Nissan Motor Co., Ltd.				
Number of employees		22,471	22,209	22,272
C 102	Male	20,346	19,971	19,908
	Female	2,125	2,238	2,364
Average age (years)		42.8	42.8	42.5
	Male	43.3	43.3	43.0
	Female	38.2	38.1	38.1
Average service (years)		20.3	20.2	19.4
-	Male	20.9	20.8	20.0
	Female	14.8	14.5	14.2
Employee turnover rate*1		4.6	4.3	5.4
	tary leave	0.9	0.9	1.3
Average annual salary (yen) *2		7,950,212	8,164,762	8,184,466
Disabled employment ratio	0	2.08	2.07	2.08
Number of employees		280	303	255
taking parental leave	Male	23	15	29
	Female	257	288	226
Male employee parental leave acquisition rate*3		3	2	4
Ratio of returnees from		98	96.9	95.2
parental leave	Male	100	100	100
	Female	98	96.6	94.5
Number of employees		7	11	13
taking nursing	Male	4	5	8
care leave	Female	3	6	5
Days of paid holiday taker	ו	18.9	19.0	19.0
Taken paid holiday ratio		95.3	96	97
Average overtime hours/m	nonth	19.6	21.4	22.1
Number of unionized emp	lovees*4	24,445	25,630	25,377

				(FY)
		2015	2016	2017
Number of female managers		242	279	314
_	Ratio	9.1	10.1	10.7
General and higher-level		62	76	82
managers	Ratio	7.0	8.1	8.2
Number of female corporate		1	2	2
officers	Ratio	1.9	4.2	3.8
Number of female board		0	0	C
members	Ratio	—	—	—
- Female board members		0	0	C
(internal)	Ratio	—		
- Female board members		0	0	C
(external)	Ratio	—	_	_
Number of female auditors		0	0	C
	Ratio	_		_
Number of new graduates		535	576	684
hired	Male	402	453	558
	Female	133	123	126

\*1 Employee turnover rate includes retirement.

\*2 Average annual salary for employees includes bonuses and overtime pay.

\*3 Ratio of male employees taking parental leave:

(Numerator) Number of male employees who take parental leave at least 1 day in the year.

(Denominator) Number of male employees whose spouses give birth in the year.

\*4 Number of unionized employees includes full-time employees, Senior Partners (reemployment after retiring) and contract employees. Number of unionized employees includes those of Nissan Motor Kyushu Co.,Ltd..

			(FY)
	2015	2016	2017
Consolidated			
Consolidated number of employees*	152,421 (19,007)	137,250 (19,366)	138,910 (19,924)
Japan*	64,837	59,441	59,431
North America*	40,151	35,951	36,080
Europe*	16,148	16,065	16,807
Asia*	26,310	20,837	20,807
Other countries*	4,975	4,956	5,785

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

## Trade union

Most of the Company's employees are affiliated with the NISSAN MOTOR WORKERS' UNION, for which the governing body is the ALL NISSAN AND GENERAL WORKERS UNIONS, and the Japanese Trade Union Confederation (RENGO) through the CONFEDERATION OF JAPAN AUTOMOBILE WORKERS' UNIONS. The labor-management relations of the Company are stable, and the number of union members was 25,377 including those of Nissan Motor Kyushu Co., Ltd. as of March 31, 2018. 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' rights to select their own trade unions are respected according to the relevant labor laws and labor environment in each country.

# ENVIRONMENTAL DATA

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## Material Balance

Input		(FY)
	Unit	2017
Raw materials	ton	7,476,600
Energy	MWh	9,532,840
-Renewable energy	MWh	147,821
Water withdrawal	1,000m <sup>3</sup>	26,197

Output		(FY)
	Unit	2017
Vehicles produced		
Global production volume	Unit	5,770,000
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	3,306,584
Water discharge	1,000m <sup>3</sup>	17,410
Emissions		
NOx	ton	651
SOx	ton	36
VOC	ton	11,152
Waste		
For recycling	ton	144,633
For final disposal	ton	8,041

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## SUSTAINABILITY REPORT 2018 EDITORIAL POLICY

Nissan publishes an annual Sustainability Report as a way of sharing information on its sustainability-related activities with stakeholders. This year's report introduces Nissan's sustainability strategy and management based on Nissan Sustainability 2022, the sustainability strategy adopted in June 2018, and reviews the results achieved in fiscal 2017 in terms of three concepts: Environmental, Social and Governance, or "E," "S" and "G" for short.

Report themes are selected on the basis of potential impact on our business activities and level of interest from stakeholders. Potential impact on our business activities is evaluated with reference to previously recognized issues as well as CSR guidelines and trends and global current events inside and outside the automobile industry. Stakeholder interest is evaluated based on interviews conducted as necessary with both internal and external stakeholders and analyses provided by external consultants.

#### Scope of the Report

Period Covered: The report covers fiscal 2017 (April 2017 to March 2018); 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 Guidelines**

This report is based on the GRI Standards for sustainability reporting, adopting the Core option. The complete guideline table for the GRI Standards for sustainability reporting is available. Specific indicators are listed in the GRI index in this report.

#### **Date of Previous Report**

Sustainability Report 2017, issued June 30, 2017.

## **Reporting Cycle**

Annually since 2004

### **Third-Party Assurance**

O Click here to view the third-party assurance.

#### **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.

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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 following publication of the report will be corrected and displayed on our website.

### **For Further Information**

Nissan Motor Co., Ltd. Sustainability Development Department Fax: +81(0)45-523-5740 Email: NISSAN\_SR@mail.nissan.co.jp

### Sustainability Report 2018

Publication Date: July 31, 2018

OCORPORATE INFO	SUSTAINABILITY	● ENVIRONMENT	● SAFETY
OUALITY	CORPORATE CITIZ	● TECHNOLOGY	⊙ ZERO EMISSION
⊙IR	⊙ INFO LIBRARY	PRODUCTS (GLOB AL)	● PRODUCTS (JAPA N)

#### Our Related Websites

# GRI CONTENT INDEX

The GRI guidline table shows published/ disclosed information on the sustainability report and Nissan global website.

#### **Universal Standards**

• GRI 102 : General Disclosures 2016

- Organizational Profile
- Strategy
- Ethics and Integrity
- Overnance
- Stakeholder Engagement
- Reporting Practice
- GRI 103 : Management Approach 2016

#### Environmental / Social / Governance

- Environmental
- 🕑 Social
- Overnance

Jul. 2018

## **Universal Standards**

## **GRI 102 : General Disclosures 2016**

## **Organizational Profile**

Section	Index	Core Topics	Sustainability Report 2018	Website
102-1	Name of the organization	~		<u>Outline of</u> <u>Company</u>
102-2	Activities, brands, products, and services	~	Sustainability Data: <u>Corporate profile</u>	
102-3	Location of headquarters	~	Sustainability Data: Corporate profile	

Section	Index	Core Topics	Sustainability Report 2018	Website
102-4	Location of operations	~		Outline of Company(Facilities in Japan). Outline of Company(Facilities Overseas).
102-5	Ownership and legal form	~		<u>Outline of</u> <u>Company</u>
102-6	Markets served	$\checkmark$	Sustainability Data: Corporate profile	
102-7	Scale of the organization	~	Sustainability Data: <u>Corporate profile</u> , Employee data	
102-8	Information on employees and other workers	~	Sustainability Data: <u>Employee data</u>	
102-9	Supply chain	~	Social: <u>Supply chain</u> management(Supply chain strategy)	
102-10	Significant changes to the organization and its supply chain	~	Not applicable	
102-11	Precautionary principle or approach	~	Sustainability at Nissan: <u>Sustainability</u> <u>Strategy</u> , <u>Internal efforts to promote</u> <u>sustainability</u> <u>Social:Community</u> <u>engagement(Policies and philosophy)</u>	
102-12	External initiatives	~	Sustainability at Nissan: <u>Sustainability</u> <u>Strategy</u> <u>Contribution to sustainable</u> <u>development goals</u> Environmental: <u>Policies and</u> <u>philosophy for the environment</u> <u>Social:Labor practices / Respecting</u> <u>the rights of workers(Policies and</u> <u>philosophy)</u>	
102-13	Membership of associations	~	Renault-Nissan-Mitsubishi Alliance Social:Labor practices / Respecting the rights of workers(Policies and philosophy)	

## Strategy

Section	Index	Core Topics	Sustainability Report 2018	Website
102-14	Statement from senior decision- maker	~	<u>CEO Message</u> <u>Message from Chief Sustainability</u> <u>Officer</u> <u>Messages from Related Corporate</u> <u>Officers</u>	
102-15	Key impacts, risks, and opportunities		Sustainability at Nissan: <u>Sustainability</u> <u>Strategy</u> Environmental: <u>Policies and philosophy</u> <u>for the environment</u> Social: <u>Social policies and philosophy</u> Governance: <u>Governance policies and</u> <u>philosophy</u>	

## **Ethics and Integrity**

Section	Index	Core Topics	Sustainability Report 2018	Website
102-16	Values, principles, standards, and norms of behavior	~	Sustainability at Nissan: <u>Sustainability</u> <u>Strategy</u> , <u>Long-term vision and goals</u> <u>for 2022</u> Environmental: <u>Policies and philosophy</u> <u>for the environment</u> <u>Governance:Governance policies and</u> <u>philosophy</u> , <u>Compliance(Business</u> <u>ethics)</u>	
102-17	Mechanisms for advice and concerns about ethics		Governance: <u>Compliance(Business</u> <u>ethics)</u>	

## Governance

Section	Index	Core Topics	Sustainability Report 2018	Website
102-18	Governance structure	~	Governance: <u>Corporate governance</u> system in detail(Initiatives)	
102-19	Delegating authority		<u>Message from Chief Sustainability</u> <u>Officer</u> <u>Messages from Related Corporate</u> <u>Officers</u>	

Section	Index	Core Topics	Sustainability Report 2018	Website
102-20	Executive-level responsibility for economic, environmental,and social topics		<u>Message from Chief Sustainability</u> <u>Officer</u> <u>Messages from Related Corporate</u> <u>Officers</u>	
102-21	Consulting stakeholders on economic, environmental,and social topics		Sustainability at Nissan: <u>Dialogue with</u> stakeholders	
102-22	Composition of the highest governance body and its committees		Governance: <u>Corporate governance</u> <u>system in detail(Initiatives)</u> Sustainability Data: <u>Employee</u>	
102-23	Chair of the highest governance body		Governance: <u>Corporate governance</u> system in detail(Initiatives)	
102-24	Nominating and selecting the highest governance body			<u>Corporate</u> <u>Governance</u> <u>Report: P.1</u>
102-25	Conflicts of interest		Governance: <u>Corporate</u> <u>governance(Avoidance of conflict of</u> <u>interest)</u>	<u>Corporate</u> <u>Governance</u> <u>Report: P.1</u>
102-26	Role of highest governance body in setting purpose, values,and strategy		Sustainability at Nissan: <u>Internal</u> efforts to promote sustainability	
102-27	Collective knowledge of highest governance body		Sustainability at Nissan: <u>Internal</u> efforts to promote sustainability	
102-28	Evaluating the highest governance body's performance		Sustainability at Nissan: <u>Internal</u> <u>efforts to promote sustainability</u> Governance: <u>Corporate governance</u> <u>system in detail(Initiatives)</u>	
102-29	Identifying and managing economic, environmental, and social impacts		Sustainability at Nissan: <u>Managing the</u> advancement of sustainability Governance: <u>Risk managemen(ESG</u> <u>Risk management)</u>	

Section	Index	Core Topics	Sustainability Report 2018	Website
102-30	Effectiveness of risk management processes		Governance: <u>Risk management(Risk</u> management systems)	
102-31	Review of economic, environmental, and social topics		Sustainability at Nissan: <u>Long-term</u> vision and goals for 2022	
102-32	Highest governance body's role in sustainability reporting		Sustainability at Nissan: <u>Internal</u> Efforts to Promote Sustainability	
102-33	Communicating critical concerns		Governance: <u>Risk managemen(ESG</u> <u>Risk management)</u>	
102-35	Remuneration policies			Corporate Governance Report: P.1
102-36	Process for determining remuneration			Corporate Governance Report: P.1
102-37	Stakeholders' involvement in remuneration			Corporate Governance Report: P.1

## Stakeholder Engagement

Section	Index	Core Topics	Sustainability Report 2018	Website
102-40	List of stakeholder groups	~	Sustainability at Nissan : <u>Dialogue with</u> <u>stakeholders</u>	
102-41	Collective bargaining agreements	~	Sustainability Data : <u>Employee data</u>	
102-42	Identifying and selecting stakeholders	~	Sustainability at Nissan : <u>Dialogue with</u> stakeholders	
102-43	Approach to stakeholder engagement	~	Sustainability at Nissan : <u>Dialogue with</u> stakeholders	

Section	Index	Core Topics	Sustainability Report 2018	Website
102-44	Key topics and concerns raised	~	Sustainability at Nissan : <u>Dialogue with</u> <u>stakeholders</u>	

## **Reporting Practice**

Section	Index	Core Topics	Sustainability Report 2018	Website
102-45	Entities included in the consolidated financial statements	~	Editorial policy	
102-46	Defining report content and topic Boundaries	~	Sustainability at Nissan : <u>Sustainability</u> <u>Strategy</u> <u>Editorial policy</u>	
102-47	List of material topics	~	Sustainability at Nissan : <u>Sustainability</u> <u>Strategy</u>	
102-48	Restatements of information	~	Editorial policy	
102-49	Changes in reporting	~	Sustainability at Nissan : <u>Sustainability</u> <u>Strategy</u>	
102-50	Reporting period	$\checkmark$	Editorial policy	
102-51	Date of most recent report	~	Editorial policy	
102-52	Reporting cycle	$\checkmark$	Editorial policy	
102-53	Contact point for questions regarding the report	~	Editorial policy	
102-54	Claims of reporting in accordance with the GRI Standards	~	Editorial policy	
102-55	GRI content index	$\checkmark$	GRI content index	
102-56	External assurance	$\checkmark$	Third-party assurance	

## GRI 103: Management Approach 2016

Section	Index	Core Topics	Sustainability Report 2018	Website
103-1	Explanation of the		Sustainability at Nissan: <u>Sustainability</u>	
	material topic and		<u>Strategy</u>	
	its Boundary		Environmental: Policies and philosophy	
			for the environment, Climate	
			Change (Strategy for addressing	
			climate change, Initiatives through	
			products / Policies and philosophy,	
			Initiatives through corporate	
			activities (Policies and philosophy,	
			Initiatives), Air Quality (Policies and	
			philosophy), Resource	
			dependency (Policies and	
			philosophy), Water scarcity (Policies	
			and philosophy)	
			Social: Human rights( <u>Policies and</u>	
			philosophy), Diversity and	
			inclusion (Policies and philosophy,	
			Management), Traffic safety (Policies	
			and philosophy), Product safety and	
			quality ( <u>Policies and philosophy</u> ,	
			Management), Supply chain	
			management ( <u>Supply chain strategy</u> ,	
			Policies and philosophy, Management	
			approach, Action against conflict	
			minerals), Human resource	
			development (Policies and	
			philosophy), Labor practices-	
			Respecting the rights of	
			workers ( <u>Policies and philosophy</u> ),	
			Labor practices-Dialogue with	
			employees ( <u>Policies and philosophy</u> ),	
			Employees' health and safety (Policies	
			and philosophy, Management),	
			Community engagement (Policies and	
			philosophy)	
			Governance: Governance policies and	
			<u>philosophy</u>	

Section	Index	Core Topics	Sustainability Report 2018	Website
Section	Index         The management approach and its components		Sustainability Report 2018 Sustainability at Nissan: Sustainability strategy, strategy,Long-term vision and goals for 2022, Managing the advancement of sustainability Environmental: Policies and philosophy, for the environment,Climate change (Strategy for addressing climate change, Initiatives through products (Policies and philosophy, Management) , Initiatives through corporate activities (Policies and philosophy, Management, Initiatives) , Air quality (Policies and philosophy) , Resource dependency (Policies and philosophy, Management) , Water scarcity (Management, Initiatives) , Strengthening our business foundation Social:Human rights (Management) , Diversity and inclusion (Policies and philosophy, Management) , Traffic safety (Policies and philosophy, Management) , Product safety and quality (Policies and philosophy, Management (Supply chain management (Supply chain management (Policies and philosophy, Management) , Labor practices- respecting the rights of workers (Management) , Labor practices-Dialogue with employees (Management) , Employees' health and safety (Policies and philosophy, Management) , Community engagement (Policies and philosophy, Management) , Community engagement (Policies and philosophy, Management) , Employees' health and safety (Policies and philosophy, Management) , Employees' health and safety (Policies and philosophy, Management) , Employees' health and safety (Policies and philosophy, Management) , Community engagement (Policies and philosophy, Management) , Community engagement (Policies and philosophy, Management) , Sumployees (Policies and philosophy, Management) (Policies and philoso	Website
			Governance: <u>Governance policies and</u> <u>philosophy</u>	

Section	Index	Core Topics	Sustainability Report 2018	Website
103-3	Evaluation of the management approach		Sustainability at Nissan : <u>Sustainability strategy</u> , <u>Long-term</u> <u>vision and goals for 2022</u> Environmental : <u>Policies and</u> <u>philosophy for the environment</u> , Climate Change ( <u>Initiatives through</u>	
			products / Initiatives, Initiatives through corporate activities / Initiatives), Air quality (Initiatives), Resource dependency (Management, Initiatives / Usage of recycled material, Initiatives / Waste materials(Initiatives)), Water scarcity (Initiatives), Strengthening our business foundation Social : Human rights (Initiatives),	
			Diversity and inclusion ( <u>Initiatives</u> ) , Traffic Safety Initiatives ( <u>Vehicles</u> , <u>Individuals</u> , <u>Society</u> ) , Product safety and quality ( <u>Management</u> ) , Supply chain management ( <u>Supply chain</u> <u>management</u> , <u>Supply chain strategy</u> , <u>Management approach</u> , Action against <u>conflict minerals</u> ) , Human resource	
			development ( <u>Management</u> ) , Labor practices-Dialogue with employees ( <u>Management</u> , <u>Initiatives</u> ) , Employees' health and safety ( <u>Management</u> , <u>Initiatives</u> ) , Community engagement ( <u>Initiatives</u> )	

## Environmental / Social / Governance

## Environmental

#### **GRI 103 : Management Approach 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
103-1	Explanation	Sustainability at		
	of the	Nissan: <u>Sustainability</u>		
	material	<u>Strategy</u>		
	topic and its	Environmental: Policies and		
	Boundary	philosophy for the		
		<u>environment</u> , Climate		
		Change ( <u>Strategy for</u>		
		addressing climate change,		
		Initiatives through		
		products / Policies and		
		<u>philosophy</u> , Initiatives		
		through corporate		
		activities ( <u>Policies and</u>		
		<u>philosopy</u> , <u>Initiatives</u> )),		
		Air Quality ( <u>Policies and</u>		
		<u>philosophy</u> ), Resource		
		dependency ( <u>Policies and</u>		
		<u>philosophy</u> ), Water		
		scarcity (Policies and		
		<u>philosophy</u> )		

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
<b>Section</b> 103-2	Index The management approach and its components	-	Website	
		<u>philosophy</u> , <u>Management</u> ), Water scarcity ( <u>Management</u> , <u>Initiatives</u> ), <u>Strengthening</u> <u>our business foundation</u>		

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
103-3	Evaluation of the management approach	Sustainability at Nissan: <u>Sustainability</u> <u>strategy</u> , Long-term vision and goals for 2022 Environmental:Policies and philosophy for the environment, Climate Change (Initiatives through products / Initiatives, Initiatives through corporate activities through corporate activities / Initiatives), Air quality (Initiatives) , Resource dependency (Management, Initiatives / Usage of recycled material, Initiatives / Waste materials) , Water scarcity (Initiatives) , Strengthening our business foundation		

#### GRI 203: Indirect Economic Impacts 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
203-1	Infrastructure investments and services supported	Climate change (Initiatives through products / <u>Initiatives</u> )		
203-2	Significant indirect economic impacts	Climate change (Initiatives through products / <u>Initiatives</u> )		

#### GRI 301: Materials 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
301-1	Materials used by weight or volume	Resource dependency (Usage of recycled material / <u>Initiatives</u> ) Sustainability Data: <u>Environmental</u> <u>data</u>		
301-2	Recycled input materials used	Resource dependency (Usage of recycled material / <u>Initiatives</u> )		
301-3	Reclaimed products and their packaging materials	Resource dependency (Usage of recycled material / <u>Initiatives</u> )		

#### GRI 302: Energy 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
302-1	Energy consumption within the organization	Climate change(Initiatives through corporate activities / <u>Initiatives</u> ) Sustainability Data: <u>Environmental</u> <u>data</u>		
302-2	Energy consumption outside of the organization	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		
302-3	Energy intensity	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
302-4	Reduction of energy consumption	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		
302-5	Reductions in energy requirements of products and services	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		

#### GRI 303: Water 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
303-1	Water withdrawal by source	Water scarcity( <u>Initiatives</u> ) Sustainability data: <u>Environmental data</u>		
303-2	Water sources significantly affected by withdrawal of water	Non-disclosure		Information unavailable: We have not collected the data requested.
303-3	Water recycled and reused	Non-disclosure		Information unavailable: We have not collected the data requested.

#### **GRI 304: Biodiversity 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		
304-2	Significant impacts of activities, products, and services on biodiversity	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		
304-3	Habitats protected or restored	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		

#### GRI 305: Emissions 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
305-1	Direct /Scope 1 GHG emissions	Climate change(Initiatives through corporate activities / <u>Initiatives</u> ) Sustainability Data: <u>Environmental</u> <u>data</u>		
305-2	Energy indirect /Scope 2 GHG emissions	Climate change(Initiatives through corporate activities / <u>Initiatives</u> ) Sustainability Data: <u>Environmental</u> <u>data</u>		
305-3	Other indirect /Scope 3 GHG emissions	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		
305-4	GHG emissions intensity	Climate change(Initiatives through corporate activities / <u>Initiatives</u> )		
305-5	Reduction of GHG emissions	Climate change(Initiatives through corporate activities / <u>Initiatives</u> ) , Air quality ( <u>Initiatives</u> )		
305-6	Emissions of ozone- depleting substances /ODS	Non-disclosure		Information unavailable: We have not collected the data requested.

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
305-7	Nitrogen oxides /NOx, sulfur oxides /SOx, and other	Air quality ( <u>Initiatives</u> ) , Resource dependency ( <u>Initiatives</u> <u>through</u> <u>products/Initiatives</u> ) Sustainability		
	significant air emissions	Data: <u>Environmental</u> data		

#### **GRI 306: Effluents and Waste 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
306-1	Water discharge by quality and destination	Water scarcity ( <u>Initiatives</u> ) Sustainability Data: <u>Environmental data</u>		
306-2	Waste by type and disposal method	Resource dependency (Waste materials/ <u>Initiatives</u> ) Sustainability Data: <u>Environmental data</u>		
306-3	Significant spills	Strengthening our business foundation ( <u>Governance</u> )		
306-4	Transport of hazardous waste	Non-disclosure		Information unavailable: We have not collected the data requested.
306-5	Water bodies affected by water discharges and/or runoff	Non-disclosure		Information unavailable: We have not collected the data requested.

### **Environmental Compliance 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
307-1	Non- compliance with environmental laws and regulations	Strengthening our business foundation ( <u>Governance</u> )		

#### **GRI 308: Supplier Environmental Assessment 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
308-1	New suppliers that were screened using environmental criteria	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		
308-2	Negative environmental impacts in the supply chain and actions taken	Strengthening our business foundation ( <u>Dialogue</u> <u>with stakeholders</u> )		

## Social

#### GRI 103 : Management Approach 2016

#### Product safety and quality

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
103-1	Explanation	Sustainability at Nissan:		
	of the	Sustainability Strategy		
	material	Social:Human rights (Policies		
	topic and its	and philosophy), Diversity		
	Boundary	and inclusion (Policies and		
		philosophy, Management),		
		Traffic safety( <u>Policies and</u>		
		philosophy), Product safety		
		and quality( <u>Policies and</u>		
		philosophy, Management),		
		Supply chain		
		management ( <u>Supply chain</u>		
		strategy, Policies and		
		philosophy, Management		
		approach, Action against		
		<u>conflict minerals</u> ), Human		
		resource		
		development (Policies and		
		<u>philosophy</u> ), Labor practices-		
		Respecting the rights of		
		workers (Policies and		
		<u>philosophy</u> ), Labor practices-		
		Dialogue with		
		employees (Policies and		
		<u>philosophy</u> ), Employees'		
		health and safety (Policies		
		and philosophy,		
		Management), Community		
		engagement ( <u>Policies and</u>		
		philosophy)		

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
103-2	The	Sustainability at Nissan:		
	management	Sustainability strategy, Long-		
	approach	term vision and goals for		
	and its	2022, Managing the		
	components	advancement of sustainability		
		Social:Human		
		rights( <u>Management</u> ),		
		Diversity and		
		inclusion (Policies and		
		philosophy, Management),		
		Traffic safety( <u>Policies and</u>		
		philosophy, Management),		
		Product safety and		
		quality ( <u>Policies and</u>		
		philosophy, Management),		
		Supply chain		
		management ( <u>Supply chain</u>		
		strategy, Policies and		
		philosophy, Management,		
		Action against conflict		
		minerals), Human resource		
		development (Policies and		
		philosophy, Management),		
		Labor practices-Respecting		
		the rights of		
		workers ( <u>Management</u> ) ,		
		Labor practices-Dialogue with		
		employees( <u>Management</u> ),		
		Employees' health and		
		safety ( <u>Policies and</u>		
		philosophy, Management),		
		Community		
		engagement ( <u>Policies and</u>		
		philosophy, Management)		

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
103-3	Evaluation of the management approach	Internal efforts to promote		

#### **GRI 201: Economic Performance 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
201-1	Direct economic value generated and distributed	Community engagement ( <u>Initiatives</u> )		
201-2	Financial implications and other risks and opportunities due to climate change		<u>The current state</u> of nissan's risk management	

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
201-3	Defined benefit plan obligations and other retirement plans		Financial information : <u>P.82</u>	

#### **GRI 203: Indirect Economic Impacts 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
203-1	Infrastructure investments and services supported	Community engagement ( <u>Policies and</u> <u>philosophy</u> )		
203-2	Significant indirect economic impacts	Community engagement ( <u>Initiatives</u> )		

#### **GRI 308: Supplier Environmental Assessment 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
308-1	New suppliers that were screened using environmental criteria	Supply chain management ( <u>Supply chain</u> <u>strategy</u> ) , Supply chain management ( <u>Management</u> <u>approach</u> )		

#### GRI 402: Labor/Management Relations 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
402-1	Minimum notice periods regarding operational changes	Sustainability data: <u>Employee data</u>		

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
403-1	Workers representation in formal joint management– worker health and safety committees	Employees' health and safety ( <u>Management</u> )		
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work- related fatalities	Employees' health and safety ( <u>Initiatives</u> )		
403-4	Health and safety topics covered in formal agreements with trade unions	Employees' health and safety ( <u>Policies and</u> <u>philosophy</u> )		

#### **GRI 403: Occupational Health and Safety 2016**

#### **GRI 404: Training and Education 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission / Explanation
404-1	Average hours of training per year per employee	Human resource development ( <u>Initiatives</u> )		
404-2	Programs for upgrading employee skills and transition assistance programs	Human resource development ( <u>Management</u> )		

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
404-3	Percentage of employees receiving regular performance and career development reviews	Human resource development ( <u>Management</u> )		

#### **GRI 405: Diversity and Equal Opportunity 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
405-1	Diversity of governance bodies and employees	Diversity and inclusion ( <u>Initiatives</u> )		
405-2	Ratio of basic salary and remuneration of women to men	Sustainability data: <u>Employee data</u>		

#### **GRI 406: Non-discrimination 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
406-1	Incidents of discrimination and corrective actions taken	Human rights ( <u>Initiatives</u> ) , Diversity and inclusion ( <u>Policies and</u> <u>philosophy</u> ) , Supply chain management ( <u>Policies</u> <u>and philosophy</u> ) , Labor practices- Respecting the rights of workers ( <u>Policies</u> <u>and philosophy</u> , <u>Management</u> )		No report applicable to 2017

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human rights ( <u>Initiatives</u> ) , Supply chain management ( <u>Policies</u> <u>and philosophy</u> )		No report applicable to 2017

#### **GRI 407: Freedom of Association and Collective Bargaining 2016**

#### GRI 408: Child Labor 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
408-1	Operations and suppliers at significant risk for incidents of child labor	Human rights ( <u>Management</u> ) , Supply chain management ( <u>Policies</u> <u>and philosophy</u> )		No report applicable to 2017

#### **GRI 409: Forced or Compulsory Labor 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human rights ( <u>Management</u> ) , Supply chain management ( <u>Policies</u> <u>and philosophy</u> )		No report applicable to 2017

#### **GRI 411: Rights of Indigenous Peoples 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
411-1	Incidents of violations involving rights of indigenous peoples	Human rights ( <u>Initiatives</u> ) , Supply chain management ( <u>Policies</u> <u>and philosophy</u> )		No report applicable to 2017

#### **GRI 412: Human Rights Assessment 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
412-1	Operations that have been subject to human rights reviews or impact assessments	Human rights ( <u>Management</u> ) , Supply chain management ( <u>Action</u> <u>against conflict</u> <u>minerals</u> )		
412-2	Employee training on human rights policies or procedures	Human rights ( <u>Initiatives</u> )		

#### **GRI 413: Local Communities 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
413-1	Operations with local community engagement, impact assessments,and development programs	-	-	Information unavailable: We have not collected the data requested.

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
413-2	Operations with significant actual and potential negative impacts on local communities	-	-	Information unavailable: We have not collected the data requested.

#### **GRI 414: Supplier Social Assessment 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
414-1	New suppliers that were screened using social criteria	Supply chain management ( <u>Supply</u> <u>chain strategy</u> , <u>Management approach</u> , <u>Action against conflict</u> <u>minerals</u> )		

#### **GRI 416: Customer Health and Safety 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
416-1	Assessment	Traffic Safety		
	of the health	Initiatives ( <u>Vehicles</u> ,		
	and safety	Individuals, Society)		
	impacts of			
	product and			
	service			
	categories			

#### **GRI 417: Marketing and Labeling 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
417-1	Requirements	Traffic Safety		
	for product	Initiatives ( <u>Vehicles</u> ,		
	and service	Individuals, Society)		
	information			
	and labeling			

## Governance

#### **GRI 103 : Management Approach 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
103-1	Explanation of the material topic and its Boundary	Sustainability at Nissan: <u>Sustainability</u> <u>Strategy</u> Governance: <u>Governance</u> <u>policies and philosophy</u>		
103-2	The management approach and its components	Sustainability at Nissan: <u>Sustainability</u> <u>strategy</u> , <u>Long-term</u> <u>vision and goals for</u> <u>2022</u> , <u>Managing the</u> <u>advancement of</u> <u>sustainability</u> Governance: <u>Governance</u> <u>policies and philosophy</u>		
103-3	Evaluation of the management approach	Nissan: <u>Sustainability</u>		

#### GRI 205: Anti-corruption 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
205-1	Operations assessed for risks related to corruption	Compliance ( <u>Anti-</u> <u>bribery position and</u> <u>policy</u> )		
205-2	Communication and training about anti- corruption policies and procedures	Compliance ( <u>Anti-</u> <u>bribery position and</u> <u>policy</u> )		

#### **GRI 307 : Environment Compliance 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
307-1	Non- compliance with environmental laws and regulations	Compliance ( <u>Business</u> <u>ethics</u> )		

#### **GRI 405: Diversity and Equal Opportunity 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission /Explanation
405-1	Diversity of governance bodies and employees	Corporate governance ( <u>Corporate</u> <u>governance system in</u> <u>detail</u> ) Sustainability data: <u>Employee data</u>	Financial information : P. <u>38</u>	
405-2	Ratio of basic salary and remuneration of women to men	Sustainability data: <u>Employee data</u>		

#### **GRI 418: Customer Privacy 2016**

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Risk management ( <u>Risk</u> <u>management</u> <u>systems</u> )		

#### GRI 419: Socioeconomic Compliance 2016

Section	Index	Sustainability Report 2018	Website	Reason for Omission/Explanation
419-1	Non-	Japan final vehicle	<u>Japan final</u>	
	compliance	inspection issue,	<u>vehicle</u>	
	with laws	Compliance /	inspection	
	and	Observance of	<u>issue</u>	
	regulations	business ethics,		
	in the social	Compliance / <u>Tax</u>		
	and	transparency		
	economic			
	area			

# QUICK GUIDE FOR INVESTORS

Key Areas	Topics	Policies and Philosophy	Manegement	Initiative
Environmental	Environmental Policy & Management Systems	~	✓	
	Climate Change	<ul> <li>Image: A start of the start of</li></ul>		
	GHG/Products	<ul> <li>Image: A start of the start of</li></ul>	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$
	GHG/Corporate Activities	~	~	~
	Energy Consumption	<ul> <li>Image: A start of the start of</li></ul>	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$
	Environmental Responsibility in Product	Pollution 🗸 LCA 🗸	Pollution 🗸 LCA 🗸	Pollution 🗸 LCA 🗸
	Clean Tech	✓	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$
	Effective Utilization of Resources	Products • Corporate 🗸 Activities Supply 🗸	Products • Corporate 🗸 Activities Supply 🗸	Products • Corporate 🗸 Activities Supply 🗸
	Pollution	<ul> <li>Image: A start of the start of</li></ul>		$\checkmark$
	Waste Materials	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$	$\checkmark$
	Use of water resources	✓	✓	✓
	Biodiversity		$\checkmark$	

Key Areas	Topics	Policies and Philosophy	Manegement	Initiative		
Social	Human Rights	$\checkmark$	<ul> <li>✓</li> </ul>	$\checkmark$		
	Diversity	$\checkmark$	<ul> <li>✓</li> </ul>	$\checkmark$		
	Product Safety and Quality	~	<ul> <li>Image: A start of the start of</li></ul>	×		
	Customer Relationship Management	~	~			
	Supply Chain Management	~	~			
	Employment	$\checkmark$	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$		
	Human Resource	$\checkmark$	<ul> <li>✓</li> </ul>	$\checkmark$		
	Non-discrimination and Equal Opportunity	~	<ul> <li>Image: A start of the start of</li></ul>	×		
	Dialogue with Employees	~	<ul> <li>✓</li> </ul>	<		
	Employees' Health and Safety	~	~	~		
	Community Engagement	~	~	×		
Governance	Corporate Governance		<ul> <li>Image: A start of the start of</li></ul>			
	Risk Management	$\checkmark$				
	Anti-Corruption	$\checkmark$				
	Observance of Business Ethics		✓			