# **SUSTAINABILITY REPORT 2019**



NISSAN MOTOR CORPORATION



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# MESSAGE FROM TOP MANAGEMENT

The auto industry is in the midst of a significant transformation driven by technological innovation around next-generation mobility, centered on CASE (Connected, Autonomous, Shared & Service and Electric) technologies. This trend is bringing about major changes to markets and business structures. Nissan is committed to creating innovative cars and services and delivering value while complying with laws, rules, and regulations as a reliable company under the corporate vision of "Enriching People's Lives."



Societal challenges differ depending on the times. Throughout our

history, we have addressed challenges from a long-term perspective. The mindset of delivering excellent technologies to as many customers as possible has been passed down unbroken from generation to generation. This is part of our DNA. We started mass production of vehicles in Japan in the 1930s. Toward the end of the 1960s, we launched the Fairlady Z and made sports cars - which most people in Japan had only dreamed of owning - more accessible. We introduced the world's first mass-market 100% electric vehicle, the Nissan LEAF, in 2010. In 2016, we introduced our ProPILOT driver assistance technology in the Nissan Serena minivan and the e-POWER electrified powertrain in our Nissan Note compact car. We have always been working to offer innovative technologies to a large number of customers. Nissan's DNA remains unchanged.

We want Nissan to evolve to be a brand that's integral to the new mobility society. "Zero emissions" (the elimination of CO<sub>2</sub> emissions from new Nissan vehicles) and "zero fatalities" (the elimination of virtually all fatal traffic accidents involving Nissan cars) are at the basis of the future mobility that we envision. In order for Nissan to lead in providing new corporate value through innovation, we formulated our sustainability strategy in 2018, "Nissan Sustainability 2022." It renews our commitment to contribute to a more sustainable society through our activities in terms of three aspects: environmental, social and governance.

#### Reforming Corporate Governance

Corporate governance is at the heart of creating value. Reforming and strengthening corporate governance is a top priority for our management. Following the approval of a resolution at the Ordinary General Meeting of Shareholders held in June 2019, we transitioned to a three-statutory-committee format. Nomination, compensation and audit committees were established. We are rigorously pursuing the separation of supervisory and execution functions. Seven out of the eleven directors who were elected at the shareholders meeting are independent outside directors. Each committee, and the board, are chaired by independent outside directors. We have created a governance structure that meets global standards. By involving independent outside directors from diverse backgrounds, we are enabling more active discussions and accelerating the decision-making process. Under the new structure, we aim to build a sound business foundation for further development, give full attention to our stakeholders, and be a company that people can trust.

#### Business Strategy and Sustainability

We are reviewing our business strategy from the standpoint of sustainability. We are shifting away from a short-term focus to build a healthy operational structure by improving the quality of sales and enhancing brand power. We are actively investing in next-generation mobility and providing attractive products and services under the Nissan Intelligent Mobility strategy. The new Nissan Skyline, which was unveiled this year, is equipped with ProPILOT 2.0, the world's first driver assistance system to combine navigated highway driving with hands-off single-lane driving capabilities. We intend to continue developing and launching such innovative products and technologies as the basis of a business strategy that enhances brand power over the long run and improves our performance. At the same time, we are further bolstering the Alliance relationship with Renault and Mitsubishi Motors.

#### Working Environment that Generates the Benefits of Diversity

Diversity of talent is one of Nissan's key assets. We strive to provide opportunities for people from diverse backgrounds to play an active role in turning our corporate vision into reality. The source of our competitiveness lies in our ability to create innovative products and services based on healthy exchange of different opinions and a solid understanding of diversifying customer needs. We hire people from a variety of backgrounds in terms of gender, nationality, culture, age, gender identity, sexual orientation, education, lifestyle, work history and other factors as part of our business strategy. We are embedding diversity into our DNA and increasing diversity and inclusion in the workplace to create an environment where people respect each other's values and appreciate and interact with each other with a sense of togetherness. We are deploying training programs across all

our operations to comprehensively instill this culture of diversity and inclusion, while further accelerating the development of global leaders who can effectively direct and guide a diverse workforce.

#### Embodying the Idea of Enriching People's Lives

As a socially responsible corporate citizen, Nissan consistently adheres to the universal principles of the United Nations Global Compact, which we signed in 2004. In pursuit of our corporate vision, we will continue to deliver sustainable value to all of our valued stakeholders, and we look forward to accelerating these efforts through Nissan Sustainability 2022.

J. Jarmauchi

Yasuhiro Yamauchi Representative Executive Officer Acting President and Chief Executive Officer, Chief Operating Officer Nissan Motor Co., Ltd.

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# MESSAGE FROM THE CHIEF SUSTAINABILITY OFFICER

### Accelerating Sustainability Initiatives Toward Realizing a Zero-Emission, Zero-Fatality Society

In fiscal 2018, Nissan unveiled a new sustainability strategy called Nissan Sustainability 2022, including sustainability goals designed to meet the expectations of society and stakeholders. With the deepening of social issues like climate change, traffic accidents and inequality, the global economy places increasing emphasis on initiatives toward resolving them, and global corporations are expected to play a greater role than ever before.



Against this background, in order to achieve our sustainability goals, we have established a Global Sustainability Steering Committee to

discuss the progress of sustainability initiatives and new issues for the company. By implementing a swift PDCA (plan, do, check, act) cycle for existing initiatives and exploring potential ways to address new issues, we seek to further improve our performance on sustainability.

#### Nissan Sustainability 2022: On Track to Meet Our Goals

Nissan Sustainability 2022 sets goals for 2022 covering the three aspects of Environmental (E), Social (S) and Governance (G), and the initiatives to meet these goals are on track to achieve their targets.

#### E: Environmental

The four key pillars of the Nissan Green Program 2022 (NGP2022) midterm environmental plan are Climate Change, Resource Dependency, Air Quality and Water Scarcity, and initiatives addressing all four are well underway.

Particularly with respect to electrification as a way of contributing to CO2 emissions reduction, we are actively expanding our efforts to establish a firm leadership position. Total cumulative sales of the Nissan LEAF, 100% electric vehicle (EV), exceeded 400,000 as of March 2019, and we plan to develop eight new EVs by fiscal 2022. Additionally, the Nissan-developed electric powertrain e-POWER, which has earned high praise from customers after seeing use in the Note and the Serena, will soon be rolled out globally. What's more, by encouraging the adoption of solutions that take advantage of EV batteries' ability to store and discharge electricity, we are making a powerful contribution to the realization of a zero-emission society by establishing an entire ecosystem around EVs.

#### S: Social

We are advancing initiatives to respect the rights of all stakeholders in the areas of traffic safety, diversity and inclusion, quality, supply chain, employees and community engagement. Cars equipped with our ProPILOT driver assistance technology are coming to market around the world, with cumulative sales exceeding 350,000 as of the end of March 2019. In July 2019, we announced the first car featuring ProPILOT 2.0, the Skyline, to be released for sale in Japan. With traffic accidents involving older drivers an acute concern in Japan recently, actively pursuing the development of a zero-fatality society.

#### G: Governance

Governance is the foundation of our corporate activities and a vital part of being a company that is trusted by society. Issues such as nonconforming final vehicle inspections and the misconduct of our former Chairman and other individuals led us to reassess the challenges we face with respect to compliance and corporate governance. We identified the laws and regulations that we must obey in each area of operations in Japan, and then carried out checks to ensure that every department was in strict compliance. We are currently extending this initiative to overseas operations to improve our compliance framework. Regarding corporate governance, based on the recommendations from the Special Committee for Improving Governance, at the June 2019 Ordinary General Meeting of Shareholders, a resolution was approved to transition to a company with three statutory committees. By clearly separating management functions from supervision and auditing, we are making rapid progress toward the reconstruction of our governance.

# Constantly Adapting to New Expectations from Society to Build Stakeholders' Confidence

We will continue to strengthen our internal structures and management and make steady progress on every initiative toward achieving the goals of Nissan Sustainability 2022.

New issues for contemporary society are constantly arising. Our belief is that the important thing is to listen to voices from society, develop a solid understanding of stakeholders' demands and ensure that both are reflected in flexible and fast-paced sustainability initiatives. By proactively disclosing information about the progress of all initiatives in a transparent and timely manner, we hope to maintain our position as a company trusted by all stakeholders.

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

# SUSTAINABILITY AT NISSAN

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# SUSTAINABILITY AT NISSAN

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## SUSTAINABILITY STRATEGY

### 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, zero-fatality society by actively contributing to the sustainable development of society.

#### **Corporate Vision**

#### **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 the ESG (Environmental, Social and Governance) aspects (important sustainability topics). 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.

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## 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 CO2 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.



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 (NGP2022)</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, we increase the level of transparency of our actions while creating opportunities to improve our 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, various sustainability 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 here for more information on the U.N. Global Compact.



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## STAKEHOLDER ENGAGEMENT

### Dialogue with Stakeholders

Nissan defines its stakeholders as those individuals and organizations that affect or are affected by the company's business. Our management approach aims to align corporate activities with societal needs. We focus on gathering feedback from stakeholders and building relationships of trust, reflecting this input in our operations. We pay close attention to society's views, work to identify opportunities and risks in their early stages and provide 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 our dialogue with stakeholders, see the pages introducing our sustainability strategy.



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	Reflect customer feedback (via various touchpoints) in products and services
Employees	Direct contact (including whistleblowing system), intranet, internal events, interviews, surveys	Explain from the CEO to employees, the previous fiscal year's business results and directions for the new fiscal year (presidential address)
Suppliers and Dealers	Suppliers conferences, dealer conventions, business meetings, direct contact, briefings, corporate guidelines, websites, dedicated portal site	Spread understanding of midterm plan, purchasing policy for each fiscal year etc. (suppliers' meetings)
Shareholders and Investors	Direct contact with IR team, shareholders meetings, financial results briefings, IR events, IR meetings, websites, Annual Report, mailing service	Explain corporate results, business strategies, ESG initiatives etc.
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	Undertake joint programs with local governments (Blue Switch etc.)
NGOs and NPOs	Direct contact, philanthropic activities, partnerships, donations, disaster relief activities, events, assistance via foundations	Consider areas to conduct activities and activity content (operation of philanthropic programs)
Local Communities	Direct contact with business facilities, local events, plant visits, conferences, sponsoring, traffic safety awareness campaigns, assistance via foundations	Promote activities to raise awareness of traffic safety in local communities (Omoiyari Light Promotion etc.)
Future Generations	Future Generations Direct contact, philanthropic programs, plant visits, endowed courses, events, assistance via foundations, websites	
Media	Contact with PR team, press conferences, PR events, press releases, interviews, mailing service, websites	Conduct 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 our company, we have an active investor relations (IR) program that provides information both promptly and transparently. Our Chief Financial Officer (CFO) and the IR function conduct constructive dialogue with shareholders and investors. To build trust, we communicate our long-term vision, the innovations we are adopting to boost our competitiveness and the latest market trends on a timely basis. The IR department reporting to the CFO is responsible for working with the relevant sections, such as corporate planning, general affairs, finance, accounting and legal affairs, to collect the information needed to make appropriate disclosures. The questions and opinions of our shareholders and investors are reported to our executives by the corporate officers in charge so that they can be reflected in our management decisions. To prevent insider trading, we refrain from conducting dialogue after preparations for the announcement of our quarterly results have begun.

#### Communication with Shareholders and Investors

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

Each year we hold events to present our business activities to investors and analysts, focusing on themes most relevant to them and making available our divisional and regional managers to actively provide the required information. In fiscal 2018, presentations covered such topics as our product strategies and Environmental, Social and Governance (ESG) initiatives, the latter featuring, for the first time, our Chief Sustainability Officer (CSO).

We will continue to disclose information appropriately to meet the needs of stakeholders and investors, thereby increasing understanding of our business.

## 120th Shareholders Meeting

The 120th Ordinary General Meeting of Shareholders was held at Pacifico Yokohama on June 25 2019, and was attended by 2,814 shareholders.

The General Meeting of Shareholders is an opportunity for Nissans executive team and the company's owners to communicate directly. We aim 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.

> Click 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, is 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 (plan, do, check, act) cycle in pursuit of improved sustainability performance. As in past years, two committee meetings were held in fiscal 2018.

Decisions on sustainability policies and future initiatives are made after the discussions at the Global Sustainability Steering Committee are reported and proposed to the Executive Committee (EC), Nissan's highest decision-making body.



Nissans 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 (Environmental, Social and Governance) aspects. By 2022, we aim to achieve these goals based on our Long-Term Vision, which takes into consideration opportunities and issues in our business operations, as well as societal expectations and issues. In achieving goals for each of the initiatives, we are aiming to achieve both our own sustainable growth and the sustainable development of society.

Approach to Nissan's Long-Term Vision and Goals for 2022



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

Activities of ESG aspects	Long- Vis	Term ion	Main Goals for 2022
		I that can be absorbed b	caused by our operations y nature, and pass on rich
	Climate change	<ul> <li>Carbon-neutral</li> <li>Achieve 90% reduction of CO2 emissions from new vehicles by 2050 (vs. FY2000)</li> <li>Achieve 80% reduction of CO2 emissions from corporate activities by 2050 (vs. FY2005)</li> </ul>	<ul> <li>Product CO2 emissions reduction: 40% reduction of CO2 emissions from new cars (vs. FY2000; JPN, U.S., Europe, China)</li> <li>Overall reduction of CO2 emissions from corporate activities: 30% reduction of CO2 emissions per vehicle sold (vs. FY2005; global)</li> </ul>
Environmental	Resource dependency	<ul> <li>Zero new material resource use</li> <li>Reduce dependency on new materials by 70%</li> </ul>	<ul><li>New resource usage minimization</li><li>Reduce new natural resource usage by 30% per vehicle</li></ul>
	Air quality	Zero impact	<ul> <li>Cabin air quality improvement: Promote research on technical solutions</li> <li>Reduce VOC from MFG: Promote reduction of VOC per paint area (vs. FY2010)</li> </ul>
	Water scarcity	Zero stress	<ul> <li>Water withdrawal reduction (manufacturing): 21% reduction of water withdrawal per global production (vs. FY2010)</li> </ul>

	Traffic safety	Reduce the number of Nissan vehicles to virte		75% reduction from 1995 levels in fatalities involving Nissan vehicles by 2020
	Diversity and inclusion	Achieve sustainable de creating innovation the inclusive organization employees with divers terms of race, nationa disability, age, place o identity and sexual ori demonstrate their pote	rough building an where individual e backgrounds in lity, gender, religion, f origin, gender entation can	Improvement in ratio of women in managerial positions - Global: 16% by 2023 - Japan: 13% by 2023
		Product quality	Strive for top-level qua perspective	ality from the customer's
	Quality	Sales and service quality		ity in all focus markets and lity for sales and service
	Supply chain	Aim to establish a sustainable supply chain with due regard to the environment and human rights	<ul> <li>All of our suppliers follow <i>Renault-Nissan CS</i> <i>Guidelines for Suppliers</i></li> <li>Aim to reduce our collective environmental footprint through environmental data survey collaboration with suppliers</li> </ul>	
Social	Employees	Learning and development	Nurture an ability to cope with a range of potential future developments	<ul> <li>Create a continuous learning culture at Nissan by:</li> <li>Launching an integrated development framework</li> <li>Driving manager and employee accountability for learning</li> <li>Providing digital solutions to realize "anytime, anywhere learning" utilizing great digital solutions</li> </ul>
		Occupational safety and health	Realize zero- accidents, zero- illnesses and a safe workplace	Reduce lost-time injuries frequency rate (globally) by 50% by FY2022 vs. FY2016 (Total lost-time injury cases ÷ total working hours × 1 million)
	Community engagement	Realize a cleaner, safer and more inclusive society		All regions are executing philanthropy programs for strategic areas, such as "zero emission," "zero fatality" and "zero inequality"

Governance	Compliance	A fully functioning framework for the prevention of conduct violations and for compliance at Nissan globally	<ul> <li>Enhance monitoring of 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	Achieve benchmark levels for maintenance and enhancement of information security, prevention of information leaks, damage limitation and maintenance of transparency in the event of leaks	Achieve benchmark levels for maintenance and enhancement of information security in each area, including new environments and areas



## 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 (EC) 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 Dealerships

Nissan undertakes various measures to ensure that its approach to compliance is shared with dealerships and to enhance its internal controls. We are strengthening lines of communication with dealerships to further improve our sustainability management.

### Working with Dealerships for Sustainability Management

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

Nissan organizes self-inspection programs at all dealerships to enhance understanding of compliance matters and improve their compliance management status. The dealerships check their current compliance status and issues based on Nissan's self-assessment checklists and use the PDCA 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 applicable Nissan departments and reports are made to the Board of Directors of dealerships as necessary. 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. Our initiatives for sustainability have received high praise from external assessors.

#### FTSE4Good Index Series

Nissan continues to be a constituent of the FTSE4Good Index, an ESG Equity Index Series of FTSE, after its 2018 review.

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



#### 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 third consecutive year.



FTSE Blossom Japan

> Click here for more information on the FTSE Blossom Japan Index

## CDP Climate Change Program

In the CDP Climate Change Report, announced in January 2019, Nissan received a Leadership-level ranking for the fifth straight year.



## Derwent Top 100 Global Innovators 2018–19

For the sixth consecutive year, Nissan was selected as one of the Derwent 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.

2018-19 DERWENT TOP 100 GLOBAL INNOVATOR Clarivate Analytics

## 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.



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## 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 SDGs.



SDG		Nissan's Contribution	Nissan's Approach	Indicators	FY2016 Results	FY2017 Results	FY2018 Results	Targets
1	1.2	Improving livelihoods	Through community engagement activities, aim to realize a cleaner, safer and more inclusive society where everyone is given equal opportunities.	-	-	-		-
2	2.1	Emergency food assistance	Ascertain the needs of areas affected by natural disasters, providing supplies and other support.	-	-	-		-
3	3.6	Reducing traffic accidents	Reduce the traffic fatalities by taking measures in the areas of vehicles, individuals and society.	Number of fatalities from accidents involving Nissan vehicles compared to 1995 level (Japan)	72% reduction	73% reduction	(Most recent data is 2017)	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 activities.	-	-	-		-
	4.7	Promoting understanding of sustainability	Promote understanding of sustainability among employees, sales companies, business partners and others.	-	-	-		-
-	5.1	Advancing gender equality	Promote support for advancement of women in the workplace globally through diversity and inclusion and community engagement activities.	-	-	-		-
5	5.5	Advancing gender equality	Establish an inclusive organization where individual employees with diverse backgrounds can demonstrate their potential to the fullest.	Ratio of managerial posts filled by women	14%	14%	13.6%	Global target of 16% by 2023
6	6.4	Improving efficiency in water usage	Manage and reduce water usage at all of production plants producing Nissan vehicles and parts located all over the world.	Rate of reduction in water usage per vehicle produced (vs. 2010)	15.7%	16.2%	18.7%	21% reduction in water usage at manufacturing plants across the world by 2022

7	7.2	Increasing renewable energy usage	Promote adoption of renewable energy according to the characteristics of each region by taking three approaches: 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	Renewable energy usage rate in manufacturing plants	9.2%	10.0%	10.2%	_
	7.3	Improving energy efficiency	Promote initiatives to reduce energy consumption in the manufacturing process.	Energy per vehicle produced	1.80 MWh	1.68 MWh	1.73 MWh	
	8.1	Economic development	Encourage the growth of the world economy through automobile manufacture and sales.	Net sales	11.7 trillion yen	12 trillion yen	11.6 trillion yen	16.5 trillion yen (2022)
	8.2	Offering learning opportunities	Provide every member of a diverse workforce with opportunities for self development "anytime and anywhere."	Hours per trainee	28.8	30.6	21.5	-
8	8.5	Establishing decent work	Promote 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.	Employee turnover rate	4.3%	5.4%	6.2%	_
	8.7	Respect for human rights	Promote initiatives based on the Nissan Human Rights Policy Statement in recognition of the U.N. Guiding Principles on Business and Human Rights as the standard reference.	-	-	-		-
	8.8	Reducing industrial accidents	Set up occupational health and safety management systems and put in place structures for the steady implementation of employee safety and health activities.	Lost-time injuries frequency rate (Japan)	0.36	0.37	0.35	-
		Improving	Work to protect the environment through business activities and the provision of revolutionary products, technologies and services.	Environmental conservation costs (Japan)	Investment: 3.87 billion yen, Cost: 177 billion yen	Investment: 4.67 billion yen, Cost: 174 billion yen	Investment: 3.79 billion yen, Cost: 171 billion yen	-
9	9.4	environmental preservation technology	Solicit the necessary facility proposals from each global site, preferentially allocating investment based on the benefit in CO2 reduction compared to project costs.	-	-	-		-
10	10.2	Advancing diversity	Establish an inclusive workplace where individual employees with diverse backgrounds can demonstrate their potential to the fullest.	-	-	-		-

			Through community engagement activities,					
11	11.1	Creating sustainable cities	and together with partners such as NGOs, aim to realize a cleaner, safer and more inclusive society where everyone is given equal opportunities.	-	-	-		-
	11.2	Establishing resilient transport infrastructure	Contribute to the development of a sustainable mobility society through use of electric vehicles, autonomous driving and other technologies.	-	-	-		-
				VOC emissions (main regions)	11,933 tons	11,152 tons	10,166 tons	-
				NOx emissions	430 tons	619 tons	418 tons	-         -         -         -         -         BAU - 2%         (Japan) and         BAU - 1%         (overseas) of         waste         reduction         -         Reduce CO2         emissions by         40% relative         to FY2000         levels by         FY2022         Reduce CO2         emissions by         30% relative         to FY2005         levels by         FY2022
	12.4	Reducing air pollutants	Reduce air pollutants from the manufacturing process.	SOx emissions	31 tons	36 tons	34 tons	-
			process.	Emissions of substances designated by PRTR	4,472tons	4,422 tons	(Most recent data is 2017)	-
12	12.5	Reducing waste	Incorporate the three Rs at the new car design stage and reduce waste materials.	End-of-life vehicle recovery rate (Japan)	99.7%	99.7%	99.6%	-
			Reduce waste materials from the manufacturing process with methods such as recycling.	Waste reduction rate (BAU ratio)	3%	10.5%	10.2% (Japan) 2.6% (Overseas)	(Japan) and BAU -1% (overseas) of waste
	12.6	Providing information about sustainability	Provide stakeholders with information through a sustainability report and other media.	-	-	-		-
	13.1	Reducing greenhouse gas emissions	Reduce CO2 emissions from new cars.	CO2 emission reduction from new cars (vs. FY2000: Japan, U.S., Europe, China)	32.6%	33.4%	33.0%	emissions by 40% relative to FY2000 levels by
13			Reduce CO2 emissions from corporate activities.	CO2 emission reduction per vehicle sold (vs. FY2005)	22.3%	29.2%	31.4%	emissions by 30% relative to FY2005 levels by
			Use carbon credits and reduce CO2 emissions.	Credit amount (Spain)	43,424 t-CO 2	45,477 t-CO 2	42,787 t-CO 2	-
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 U.N. Millennium Ecosystem Assessment framework, identify issues and implement initiatives that include cooperation with outside organizations.	-	-	-		-

	16.3	Respect for the rule of law	Strengthen the legal order through strict adherence to law.	Significant violations of laws and regulations which resulted in government penalties (Environment)	None	None	None	-
16	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- Bribery Policy.	-	-	-		-
17	17.16	Technological cooperation toward a sustainable society	Serve as a technology leader in the automobile industry through the Renault-Nissan- Mitsubishi alliance.	-	-	-		-

# The Alliance

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

In 2018, the Alliance sold more than 10.76 million vehicles, maintaining its position as the world's largest automotive group in terms of passenger car and light commercial vehicle (LCV) sales. The Alliance member companies offer vehicles under 10 brands: Nissan, Infiniti, Datsun, Venucia, Renault, Renault Samsung, Mitsubishi, Dacia, Lada and Alpine.

## Alliance Operating Board

On March 12, 2019, Jean-Dominique Senard, Chairman of Renault, Hiroto Saikawa, CEO of Nissan at the time, Thierry Bollore, CEO of Renault, and Osamu Masuko, CEO of Mitsubishi Motors at the time, signed a letter of intent committing to a "fresh start" for the Alliance including the creation of an Alliance operating board. The new Alliance Board will be the sole body overseeing the operations and governance of the Alliance, undertaking projects to drive incremental value for the three member companies.

## Technology Leadership

The Renault-Nissan-Mitsubishi alliance 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 725,000 electric vehicles sold globally since its first EV, the Nissan LEAF, went on sale in December 2010. 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, focused on future activities and breakthrough innovation. This includes 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 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.

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## World Business Council for Sustainable Development Membership

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.

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GRI103-3

# Reforming Corporate Governance

In November 2018 Nissan Motor Co., Ltd. announced it had confirmed matters related to the misconduct of the company's former Chairman and other individuals that had been discovered through an internal investigation spurred by whistleblower reporting. In light of this incident, we recognized the urgency of reforming and strengthening our system of corporate governance, and in December 2018 established the Special Committee for Improving Governance, which consists of three independent outside directors and four independent third-party committee members. In line with the recommendations of the committee, in March 2019 it was confirmed that preparations would be made to transition to a company with three statutory committees in order to construct a sound system to serve as a foundation for future business activities.

The Ordinary General Meeting of Shareholders held on June 25, 2019 approved amendments to the articles of incorporation and the transition to a company with three statutory committees, marking the start of the new system. In addition, in order to facilitate the new system, detailed rules and policies were established or amended on for the new system of governance, including corporate governance guidelines, standards of director independence, board and committee regulations, and general internal control policies.

Governance is the foundation of our corporate activities and an indispensable part of being a company that is trusted by society. We will continue to engage in our efforts to improve corporate governance as a top-priority management issue, while also developing our business activities with an eye to the demands of society and our social responsibility so that we can contribute to the development of a sustainable society.

See below for more details about Corporate Governance. https://www.nissan-global.com/EN/DOCUMENT/PDF/GOVERNANCE/g\_report.pdf https://www.nissan-global.com/EN/COMPANY/PROFILE/CORPORATEGOVERNANCE/

## Message from Chair of the Board of Directors Yasushi Kimura

At the Ordinary General Meeting of Shareholders held in June 2019, I was selected as one of the independent outside directors of Nissan Motor Co., Ltd. and appointed as the Chair of the Board of Directors. In recent years, the automobile industry is being called on to play an increasingly important role in helping to realize a sustainable society. It goes without saying that Nissan must continue providing value to all of its stakeholders through contributing further to technical innovation and providing beneficial mobility to society, but at the present time another particularly pressing issue for us is strengthening the governance and compliance at the foundation of all those activities.



I have many years of management experience in the oil industry, a field that has brought important value and change to people's lives and the global environment. Both the oil and automobile industries have long sustained and contributed to the affluence of people and prosperity of society, and both are now approaching a major turning point in relation to the issue of realizing a sustainable society. One might say that these industries must undergo significant structural reforms in order to better balance affluence with sustainability.

As the Chair of the Board of Directors, I intend to draw on my management experience to date to allow the Board of Directors to operate in a way that enables lively discussions and provides effective advice and supervision to executive officers.

The decision was made at the Ordinary General Meeting of Shareholders for Nissan Motor Co., Ltd. to shift to a three-statutory-committee system, and in order to guarantee the effectiveness of the new system the Board of Directors will function to supervise the executive officers. For us to regain the trust of our shareholders and all other stakeholders, it is vital that we have a reliable system of management in place. I want to engage in managing and invigorating the Board of Directors in the spirit of transparency and impartiality. I am confident that the various experiences and perspectives of the independent outside directors, who come from a wide variety of backgrounds, will contribute greatly to further developing Nissan's diversity—already one of the company's strengths.

With the automobile industry undergoing major changes involving electrification, intelligent functions and new mobility services, I intend to ensure that the Board of Directors fulfills its duties so that we can sustainably raise our corporate value and contribute further to the sustainable development of society.

CY. Kimika

Yasushi Kimura Chair of the Board of Directors Nissan Motor Co., Ltd.
# ENVIRONMENTAL

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# ENVIRONMENTAL POLICIES AND PHILOSOPHY

Nissan's Understanding of Environmental Issues V Nissan's Steps to Address Environmental Issues V Environmental Principles V Global Environmental Management Framework and Governance System ¥ Environmental Action Plan: Nissan Green Program 2022 💙 Key Issues and Challenges  $\checkmark$ 

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## Nissan's Understanding of Environmental Issues

Environmental and social issues are attracting more and more attention in recent years. With the world's population expected to reach 9 billion by 2050, society faces problems in areas such as poverty and hunger, energy, climate change and various conflicts. To address these issues, the United Nations adopted a resolution in September 2015 titled "Transforming Our World: the 2030 Agenda for Sustainable Development." The Agenda contains 17 Sustainable Development Goals (SDGs) and 169 targets, and there are high expectations that corporations as well as nations will play a major role in realizing the SDGs. Nissan supports the SDGs, as it recognizes the growing importance of delivering safe, secure and sustainable mobility for all and providing value to society.

The auto industry is dependent on the global environment in complex and diverse ways, while also having significant impact on the environment. Nissan is tackling a range of issues to promote sustainability by advancing measures to mitigate climate change and conserve energy, preserve air quality and other natural capital, use mineral resources efficiently, properly manage chemical substances, efficiently allocate scarce resources and promote good health. We are also restructuring our business to reduce our dependence on fossil fuels.

As a global automaker, we take active steps to identify the direct and indirect environmental impacts of our activities, working with business partners and society to minimize the negative impacts of our

products and services throughout their lifecycle. We acknowledge that our activities and efforts must be continuously improved and advanced; we seek to provide greater value to society by delivering sustainable mobility for all while alleviating environmental impacts associated with climate change, resource dependency, water use and other issues.

We decide which environmental priorities we address and to what degree based on social trends, materiality assessment results and consultations with various stakeholders.

\*Click here for more information on how Nissan supports the SDGs.

## Nissan's Steps to Address Environmental Issues

To positively contribute to the resolution of global environmental issues, Nissan believes in the importance of listening to diverse voices in society and undertaking an assessment process to identify priority issues. These materiality assessments involve analyzing latent opportunities and risks, determining material issues that are of mutual relevance to Nissan and our stakeholders and drafting medium- to long-term environmental strategies.

In assessing environmental materiality, we applied the methods of the Corporate Ecosystem Services Review (ESR),\* developed by the World Resources Institute (WRI) in cooperation with the World Business Council for Sustainable Development (WBCSD) and the Meridian Institute based on the U.N. Millennium Ecosystem Assessment (MA). As a result, we specified three priority areas on which we should focus as an automaker: Procurement of Energy, Procurement of Material Resources and Usage of Water Resources. A fourth area that is linked directly to people's health—Air Quality—was cited as being within the scope of consideration, as the swelling of urban populations and economic development are often accompanied by deteriorating air quality. These four areas were analyzed inhouse in terms of opportunities and risks for Nissan with reference to the 2030 Agenda for Sustainable Development, centered on the SDGs, as well as the discussions at the World Economic Forum, the Paris Agreement adopted at the 21st Conference of the Parties (COP21) and other global agendas. Through direct discussions with international environmental experts, investors and NGOs/NPOs, as well as through separate dialogues with our Alliance partners, we subsequently identified Climate Change, Resource Dependency, Air Quality and Water Scarcity as our four key pillars.

We further analyzed these key environmental issues and their subcategories in terms of importance for our stakeholders and relevance for Nissan. Mind maps were created reflecting these priorities. In order to create new value by contributing to the resolution of the four environmental issues, we are actively strengthening our business foundations through continuous stakeholder dialogues.

<sup>\*</sup>Click here to read "Ecosystem Services and the Automotive Sector," a report outlining the conclusions of the Corporate Ecosystem Services Review conducted by Nissan.

#### Materiality Matrix (Environment)

		Nissan relevance		
		High	Very high	Extremely high
	Extremely high		<ul> <li>Electrification</li> <li>Energy efficiency at facilities</li> <li>Emissions from products, in-cabin air quality</li> <li>Human health</li> </ul>	<ul> <li>Fuel economy</li> <li>Transition and physical risks induced by climate change</li> </ul>
Stakeholder relevance	Very high		<ul> <li>Introduction of renewable energy at facilities</li> <li>Emissions from facilities</li> <li>Reduce, reuse, recycle</li> <li>Material sourcing</li> <li>Resource efficiency</li> <li>Wastewater and landfill management</li> <li>Stakeholder engagement</li> <li>Chemical substance management</li> <li>Occupational health and safety</li> </ul>	<ul> <li>Promotion and development of MaaS (Mobility as a Service)*</li> <li>Water use at facilities</li> </ul>
	High		<ul> <li>Ecosystem services and biodiversity</li> </ul>	

\*MaaS: Car sharing and other mobility services that do not require actual car ownership.

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# **Environmental Principles**

Nissan's Corporate Environmental Principles were established to realize its Corporate Vision: "Enriching People's Lives."

We provide customers with innovative products and promote the effective use of energy and resources by diversifying our sources and making active use of renewable energy and recycled materials. These are just some of the ways in which Nissan is striving to achieve "a Symbiosis of People, Vehicles and Nature."

To this end, we have clearly defined our environmental principles and vision, including our ultimate goal: "To reduce the environmental impact and resource consumption of our corporate operations and vehicles throughout their lifecycle to a level that can be absorbed naturally by the Earth." This means endeavoring to leave as small an ecological footprint as possible.



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

In addition to deepening our understanding of the environment, we conduct all of our operations, including production and sales, with consideration for people, society, nature and the Earth, as a means of contributing to the building of a better society.

#### Ultimate Goal

We will manage the environmental impact caused by our operations and products to a level that can be absorbed by nature and pass on rich natural capital to future generations.

#### What We Want to Be: A Sincere Eco-Innovator

Sincere: Proactively address environmental challenges and reduce our impact on the environment. Eco-Innovator: Develop a sustainable mobility society through innovative technology in products and services.

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# Global Environmental Management Framework and Governance System

To promote comprehensive environmental management as a global company while responding to a diverse array of environmental issues, Nissan has a governance system built on dialogue and partnership with each region and many corporate functions, as well as with a variety of stakeholders. 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 determine the specific programs to be undertaken by each division, using the PDCA cycle to manage and operate the environmental programs efficiently. In addition, environmental risks are regularly reported in the Internal Control Committee meetings to strengthen corporate governance.

Corporations today are expected to disclose their environmental initiatives and related decisions in a reliable and transparent manner. We actively communicate with a broad range of stakeholders through our Sustainability Report and by answering inquiries from various environmental rating agencies.



Global Environmental Management Framework

#### Environmental Management Organization



# Environmental Action Plan: Nissan Green Program 2022

We first announced the Nissan Green Program (NGP) midterm environmental action plan in 2002 to achieve our environmental philosophy of "A Symbiosis of People, Vehicles and Nature" and to ultimately reduce our environmental dependence and impact to levels that nature can absorb. Under NGP2016, launched in fiscal 2011, we fully achieved our targets for the four key initiatives of zeroemission vehicle penetration, fuel-efficient vehicle expansion, corporate carbon footprint minimization and natural resource use minimization.

In fiscal 2017, we launched NGP2022,\* annually disclosing the indices and achievements for the activities undertaken in the four key initiatives. We are accelerating our efforts to address environmental issues, not only in manufacturing-related divisions like R&D and production but also in sales and services, while strengthening our business foundations and creating social value.

#### Evolution of NGP











\*Click here for more information on NGP2022.

#### GRI102-29 GRI102-31

# Key Issues and Challenges

Under NGP2022, we will address the following key issues, striving not just to attain compliance but also to meet society's expectations and to realize our long-term vision.

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

Promote society's decarbonization through vehicle electrification/intelligence and innovative future *monozukuri* 

#### • Resource Dependency: We aim to eliminate the use of new material resources

Create systems that use resources efficiently and sustainably, and promote services that 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 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

NGP2022 will contribute to the achievement of our new midterm plan, Nissan M.O.V.E. to 2022, announced in November 2017.

#### NGP2022 Action Plan

Activities		NGP2022 Objectives	FY2018 Results
Clima	Climate change (Product)		
Long	Long-term vision: Achieve 90% reduction of CO2 emissions from new vehicles by 2050 (vs. 2000)		
1	Product CO2 emission reduction	40% reduction of CO2 emissions from new cars (vs. FY2000; Japan, U.S., Europe and China)	Reduced by 33.0%
2	Solid EV leadership		Launched Nissan LEAF e+. Nissan LEAF retained its position as the world's best-selling EV, with accumulated sales of 400,000 units
3	Support driver's behavior	Pilot program with connected cars	Activities underway
4	Expansion of vehicle usage	Global expansion of V2X for energy management (Japan, U.S. and Europe)	Promoted expansion of usage
Clima	Climate change (Corporate)		
Long	Long-term vision: Achieve 80% reduction of CO2 emissions from corporate activities by 2050 (vs. 2005)		
5	Overall reduction of CO2 emissions from corporate activities	30% reduction of CO2 emissions per vehicle sold (vs. FY2005; global)	Reduced by 31.4%
6	Reduction of CO2 emissions at manufacturing sites	36% reduction of CO2 emissions per vehicle produced (vs. FY2005; global)	Reduced by 33.7%
7	Reduction of CO2 emissions of logistics	12% reduction of CO2 emissions per production (vs. FY2005; Japan, North America, Europe and China)	Reduced by 14.3%
8	Reduction of CO2 emissions at offices (including R&D sites)	12% reduction of CO2 emissions per floor area (vs. FY2010)	Reduced by 12.7%
9	Reduction of CO2 emissions at dealers	12% reduction of CO2 emissions per floor area (vs. FY2010; Japan)	Reduced by 12.6%
10	Expansion of renewable energy use	Expansion of renewable energy introduction	Increased rate of renewable energy use in manufacturing plants to 10.2%

Air qu	Air quality		
11	Cabin air quality improvement	Promotion of research on technical solutions	Activities underway
12	Reduction of VOC emissions at manufacturing sites	Promotion of VOC emission reduction per paint area (vs. FY2010)	Reduced by 27.2%
Reso	urce dependency		
Long	-term vision: Reduce dependen	cy on new materials by 70%	
13	Development of biomaterials	Promotion of research on technical solution	Development underway
14	Proper use of chemical substances	Implementation of the Alliance policy on chemical substance management	Strengthened Alliance policy and continued steady implementation
15	New resource usage minimization	30% reduction of new natural resource usage per vehicle	Promoted activities toward 2022 target
16	Expansion of remanufactured parts	Duplation of remanufactured item coverage (vs. FY2016)	Promoted activities toward 2022 target
17	Expansion of battery reuse	Expansion of the EV battery reuse business	Promoted EV battery reuse
18	Adoption of die-less forming	Plan and implement technical development	Development underway
19	Waste reduction (manufacturing)	BAU 2% (Japan) and BAU 1% (overseas) reduction of waste	Reduced by 10.2% (Japan) Reduced by 2.6% (overseas)
20	Waste to landfill reduction (manufacturing)	Landfill ratio reduction	Reduced waste to landfill ratio to 4.0% (global)
Water scarcity			
21	Water withdrawal reduction (manufacturing)	21% reduction of water withdrawal per global production (vs. FY2010)	Reduced by 18.7%

Business foundations			
22	Governance enhancement	Implementation of our environmental compliance policy	Adhered to environmental compliance policy
23	Further application of LCA	Measure lifecycle environmental impact of vehicle and new technology	Continued to reduce environmental impact, including of products with electrification technologies
24	Engagement with suppliers	Implementation of environment data survey to promote engagement and reduce environmental impact	Improved score ranking by conducting CDP surveys and engaging directly with suppliers
25	THANKS activities promotion	Further promotion of Supplier THANKS activities	Continued to promote THANKS activities
26	Nissan Green Purchasing Guidelines	Adoption of updated policy	Made substantial revisions to the Nissan Green Purchasing Guidelines in line with NGP2022, and adhered to updated guidelines
27	Education program for the next generation	Global expansion of Nissan Waku-Waku Eco school program	Conducted trial activities in Brazil
28	Collaboration with NGOs for ecosystem conservation	Enhancement of collaboration and partnerships with NGOs	Continued joint projects with WWF and Conservation International

# CLIMATE CHANGE

# STRATEGY FOR ADDRESSING CLIMATE CHANGE

Toward a Carbon-Neutral Society 💙

Nissan's Steps to Reduce CO2 Emissions  $\checkmark$ 

Efforts at Every Link in the Value Chain  $\checkmark$ 

Building a Resilient Climate Change Strategy 💙

GRI103-1 GRI103-2

## Toward a Carbon-Neutral Society

In 2015, the United Nations Climate Change Conference (COP21) adopted the historic Paris Agreement to keep the increase in global temperature to "well below" 2 degrees Celsius.

At COP24, held in 2018, parties agreed on concrete guidelines to achieve the goals of the Paris Agreement, namely, to achieve the peaking of global greenhouse gas (GHG) emissions as early as possible and to strike a balance between GHG emissions from human activity and carbon absorption by nature by the second half of this century.

One of the United Nations' Sustainable Development Goals (SDGs), announced in 2015 as part of its 2030 Sustainable Development Agenda, is to "take urgent action to combat climate change and its impacts." Nissan is responding to these developments by focusing on electrification and other innovative technologies and by promoting decarbonization through reductions in CO<sub>2</sub> emissions across the value chain, including by suppliers.

# Nissan's Steps to Reduce CO<sub>2</sub> Emissions

The business structure of the automobile industry is changing greatly in the face of demands to reduce CO2 emissions and dependence on fossil fuels. As a global automaker, Nissan considers emissions across the entire value chain it shares with its suppliers, from procurement of raw materials to transportation and operation of vehicles. We understand how important it is to balance environmental initiatives with business activities, and strive to reduce emissions through new technology development, renewable energy use and other measures.

# Efforts at Every Link in the Value Chain

The Nissan Green Program 2022 (NGP2022) aims to achieve carbon neutrality by reducing emissions from our corporate activities, products and services.

CO2 Emissions in the Value Chain\*



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

\*Actual emissions in 2018.

#### GRI102-11 GRI102-15

## Building a Resilient Climate Change Strategy

The incremental move toward decarbonization could generate major new risks for businesses. In addition to transition risks resulting from changes in policies and regulations, technologies, markets and reputation, there are also growing physical risks, as climate change raises the frequency of extreme weather conditions. Recognizing climate change as a risk for the financial system, the G20 Financial Stability Board established the Task Force on Climate-related Financial Disclosures (TCFD) to encourage disclosures that would enable investors to make informed decisions. In its June 2017 final report, the Task Force proposed a recommendations framework for information disclosure. Nissan considers climate change to be an issue that goes to the heart of its operations. The Global Environmental Management Committee (G-EMC), co-chaired by a board member, identifies trends in climate-related risks and business opportunities and adopts strategies accordingly. Climate change and other environmental risks comprise a category of risks for corporate management and are regularly monitored by the Internal Control Committee to strengthen corporate governance.

regulations on fuel economy and CO<sub>2</sub> emissions, intensifying competition in the EV market and physical damage due to extreme weather conditions. We determine specific measures to be taken by each division after clarifying the risks and opportunities—including those relating to climate change—for our company.

Additionally, climate change also greatly heightens customer needs for energy-efficient mobility. We are meeting those needs by clearing stringent CO<sub>2</sub> emissions regulations, as outlined in the Nissan M.O.V.E. to 2022 midterm plan calling for annual aggregate sales of 1 million 100% EV and e-POWER vehicles by fiscal 2022. In our corporate activities, we are actively advancing energy-saving measures, shifting to climate-efficient logistics and introducing renewable energy sources.

In the light of these climate-related risks and opportunities, we established a long-term vision for climate change<sup>\*1</sup> and drew up the Nissan Green Program 2022 (NGP2022)<sup>\*2</sup> midterm environmental action plan. We will reinforce the resilience of our climate change strategy to enable responses to multiple climate change scenarios and seek to disclose information in line with the TCFD framework in order to facilitate the understanding of investors and other stakeholders.

\*1 Long-term vision for climate change:

- Products: Reduce CO<sub>2</sub> emissions from new vehicles by 90% compared to 2000 levels by 2050. Click here for more information on Policies and Philosophy for Product Initiatives.
- Corporate activity: Reduce overall corporate CO<sub>2</sub> emissions by 80% compared with 2005 levels by 2050. Click here for more information on Policies and Philosophy for Corporate Activity Initiatives.
- Climate change indices, targets and achievements, along with Scope 1, 2 and 3 emissions are contained in this report under <u>"NGP2022 Framework and Action Plan,"</u> <u>"Product Initiative: Achievements"</u> and <u>"Environmental Data."</u>

\*2 Click here for more information on NGP2022.

# CLIMATE CHANGE

# PRODUCT INITIATIVES

Policies and Philosophy for Product Initiatives Management of Product Initiatives Product Initiatives: Achievements Electrification and Internal Combustion Engine Initiatives Initiatives for Lighter Vehicles Initiatives for Partnerships with Society

GRI103-1 GRI103-2

# Policies and Philosophy for Product Initiatives

#### Reduction of Emissions from Products and Services

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

## Our Long-Term Vision

In 2006, based on calculations incorporating the findings of the IPCC's Third Assessment Report and the goal of keeping global temperatures from rising more than 2 degrees Celsius, we set a scientifically grounded target for 2050 of reducing product CO<sub>2</sub> emissions from new vehicles by 90% compared to 2000 levels.

Recognizing that this would require to drastically reduce "well-to-wheel" CO2 emissions from new vehicles, we set about developing a new scenario for powertrain technologies.

Under the Nissan Green Program 2022 (NGP2022), to remain on track with this target, we are aiming to reduce CO<sub>2</sub> emissions from new vehicles by 40% compared to fiscal 2000 by 2022 (in Japan, the U.S., Europe and China) throughout the value chain as a whole.

As a global leader in technological advancements through the electrification of our products, we believe we can substantially contribute to the global efforts to keep the temperature rise "well below" 2 degrees Celsius. These initiatives also reinforce the sustainability of our own business.

We are driving the evolution of new technologies and businesses. Under the umbrella of Nissan Intelligent Mobility,\* we take a unified approach to introducing, marketing and deploying new technologies, functions, businesses and services.



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

\*Click here for more information on Nissan Intelligent Mobility.

#### Pursuing a Zero-Emission Society

Electric vehicles (EVs) demonstrate that what is good for drivers and the planet is also good for business. Widespread use of zero-emission vehicles, which produce no CO2 emissions during operation, is an effective way of moving toward a sustainable society. The auto industry must go beyond simply producing and selling these vehicles to help establish the infrastructure necessary to make them economical to use. No company can achieve this on its own. We consider the introduction and adoption of zero-emission vehicles one of the pillars of our corporate strategy. We are taking a comprehensive approach that involves boosting production and sales of zero-emission vehicles along with other activities coordinated with a variety of partners to popularize their use. We are committed to becoming a leader in the field of zero-emission vehicles. Not only are we increasing our development and production of zero-emission vehicles, we are forging numerous zero-emission partnerships with national and local governments, electric power companies and other industries to promote zero-emission mobility and explore how the necessary infrastructure can be built.

We participate in a comprehensive range of vehicle-related initiatives, including the development of lithium-ion batteries, secondary use and recycling of batteries, construction of vehicle-charging infrastructure, helping to make smart grids a reality and standardization of charging methods with other manufacturers.

Increasing uptake of zero-emission vehicles will bring lifestyle changes that lay the groundwork for a new mobility society. We provide more than just EVs themselves—we also embrace the new values that they represent.

# Image: Second system of the second system

Building a Zero-Emission Society with EVs

Building charging infrastructure

#### Establishing Leadership in the EV Sector

Our commitment to sustainable mobility addresses concerns over climate change and supports the sustainable growth of the company.

Our 2010 launch of the first Nissan LEAF made us pioneers of mass-produced EVs. Since then, we have sold more than 530,000 EVs (including joint venture sales) around the world in total, and our midterm plan, Nissan M.O.V.E. to 2022, calls for even more Nissan EVs, designed to appeal to customers with an ever-wider range of needs.

Furthermore, our history with EVs goes deeper than simply manufacturing and selling the vehicles themselves. We helped to establish an environment allowing EVs to become part of our customers' lifestyles, and developed the Nissan Energy solution for enjoying life with an EV to the fullest. Together, these initiatives created what we call the Nissan EV Ecosystem.

As we continue to strive for a zero-emission society, we will expand and develop the Nissan EV Ecosystem even further.

#### Nissan EV Ecosystem



## Management of Product Initiatives

#### Key Activities in NGP2022

The CO2 emissions of a vehicle in use are influenced not only by engine performance and fuel type but also by traffic conditions and driving skills. Decarbonizing society will require new vehicle usage patterns. Nissan takes a threefold approach to mitigating real-world CO2 emissions that addresses vehicle, driver and new mobility value.

#### 1. Adopt cleaner energy to reduce vehicle CO2 emissions

Extend electrification across all brands under the Nissan Intelligent Mobility strategy.\*<sup>1</sup> Expand electric vehicle (EV) lineup and deploy e-POWER technology in core Nissan products.

# 2. Promote technology-based driver assistance and accelerate connected car development and commercialization

#### 3. Provide new mobility value

Provide new mobility services and expand the value of vehicle use. Pursue global expansion of V2X\*<sup>2</sup> energy management solutions (commercialization in the United States and Europe, and expansion of LEAF to Home in Japan) and engage with stakeholders to support V2X device commercialization.

<sup>\*1</sup> Click here for more information on Nissan Intelligent Mobility.

<sup>\*2</sup> V2X: Abbreviation for Vehicle to Everything, a term describing technology and systems for handling communication in vehicles. One example of V2X technology is Vehicle-to-Grid (V2G), which allows smart optimization of electricity supply according to demand.

## Product Initiatives: Achievements

#### Toward a 40% Reduction in New Vehicle CO2 Emissions

Nissan strives to develop technologies that maximize the overall energy efficiency of conventional internal combustion engines and improve transmission performance. We are also working to boost the efficiency of electrification systems that capture and reuse kinetic energy from braking. Electrification is just one of our concrete *monozukuri* initiatives in technical innovation. We select the optimal fuel economy technologies for particular vehicles, taking into consideration factors like space within the vehicle, usage and economics, and bring them to market. Our goal is to reduce fuel consumption and CO2 emissions without sacrificing the pleasure and ease of driving.

By fiscal 2022, we aim to achieve a 40% reduction in CO<sub>2</sub> emissions\* compared to fiscal 2000 levels. \*From new vehicles in the Japanese, U.S., European and Chinese markets.



#### CO2 Emissions from New Vehicles (Global)\*

In fiscal 2018, CO2 emissions in Nissan's main markets of Japan, the U.S., Europe and China were 33.0% lower than fiscal 2000 levels, as measured by Corporate Average Fuel Economy (CAFE). This was a slight regression from fiscal 2017 due to changes in the powertrain sales mix in the EU.

\*Reduction in CO2 emissions calculated by Nissan.

GRI302-5

## Electrification and Internal Combustion Engine Initiatives

# Nissan LEAF Sales Exceed 400,000, Further Reducing Environmental Burden

The Nissan LEAF emits no CO<sub>2</sub> or other exhaust during operation. Since its launch in 2010, it has earned high praise for the smooth, strong acceleration and quiet operation of its electric motor powered by a lithium-ion battery.

As part of our midterm plan, Nissan M.O.V.E. to 2022, we are aiming for annual aggregate sales of 1 million 100% electric vehicles (EVs) and e-POWER vehicles by fiscal 2022. With total cumulative sales of the Nissan LEAF worldwide exceeding 400,000 vehicles as of March 2019, it remains the best-selling EV in the world. In China, we manufacture the Nissan Sylphy Zero Emission model, which inherits the core technologies of the Nissan LEAF, for the local market. While the low environmental impact of Nissan's EVs is attractive, these figures were likely driven at least in part by consumer awareness of other factors, such as low fuel and maintenance costs and superior acceleration and steering performance.

Our calculations show that the Nissan LEAF and other EVs can produce fewer CO2 emissions over their entire lifecycle compared to gasolinepowered vehicles of the same class—from the extraction of raw materials, manufacturing, logistics and use, to end-of-life disposal. By contributing to the shift to renewable energy, EVs play an essential role beyond transportation in helping to achieve a low-carbon society.



Nissan LEAF

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

Launched in October 2017, the new Nissan LEAF is a zero-emission vehicle equipped with innovative semi-autonomous drive technologies like ProPILOT, ProPILOT Park and e-Pedal. It offers greater power output, a longer driving range and more convenience than ever.

This significant improvement in power output and driving range is made possible by a lighter and more compact high-capacity lithium-ion battery. We have adopted a new material\*<sup>1</sup> capable of storing a higher density of energy, decreasing the battery's size but increasing its capacity. This innovation made it possible to expand the Nissan LEAF's driving range from 200 kilometers (for the original 2010 model) to 322 kilometers<sup>\*2</sup> for the new Nissan LEAF, while at the same time improving electricity consumption. In January 2019, Nissan introduced the Nissan LEAF e+, equipped with a newly developed e-POWER powertrain that further enhances its acceleration capabilities during high speed operation and increases its maximum speed by about 10%.\*<sup>3</sup>

- \*1 Our newly adopted layered structure for cathode material contributes to larger battery capacity by helping to store lithium ions at high density.
- \*2 Measured in WLTC mode (equivalent to 400 km in JC08 mode and 150 miles under U.S. EPA standards).
- \*3 458 km in WLTC mode and 570 km in JC08 mode. The maximum range is 226 miles under U.S. EPA standards and 385 km in European WLTP (combined cycle).

# Enhancing Our 100% Electric-Motor-Powered e-POWER Drivetrain and Its Lineup

In November 2016, in Japan, we launched the first vehicle to feature our innovative new e-POWER drive system: the new compact Note e-POWER. In March 2018, the e-POWER system was further expanded to the Serena, also for the Japanese market. Both the Note e-POWER and the Serena e-POWER have received high praise from customers, achieving No. 1 sales rankings in their respective segments. The e-POWER system combines an electric motor, which drives the wheels, with a gasoline engine that charges the vehicle's battery. Because the e-POWER uses gasoline as its power source, it eliminates the need to charge



\*CO2 emissions calculated from the fuel consumption rate in JCO8 mode (measurement method of Japan's Ministry of Land, Infrastructure, Transport and Tourism).

the battery. In addition, because the actual drive comes from an electric motor, it offers driving comfort similar to that of an EV, making e-POWER a new powertrain completely different from the hybrid systems commonly used in previous compact cars.

As the gasoline engine does not directly drive the wheels, it can be run under optimal conditions (RPM, load) at all times to generate electricity. In city driving, where it is expected to see frequent use, the Serena e-POWER achieves top-class fuel economy\* compared with standard hybrid vehicle types.

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

\*As of when the model first went on sale, as measured in JC08 mode: Serena e-POWER, 26.2 km/L.

#### The e-NV200: A Practical, Sustainable City Delivery Vehicle

Based on the Nissan NV200, a multipurpose commercial van, the e-NV200 retains the roominess and versatility of the NV200 and adds the acceleration performance and refinement of an EV. It has been produced at our Barcelona Plant in Spain since June 2014 and is sold mainly in Europe and Japan. The e-NV200 is used by taxi services in Barcelona and Amsterdam. In Japan, it has been adopted by a



As a mobile power source, the e-NV200 has a range of business applications.

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 excels in environmental performance with reduced noise pollution and other features. Equipped with two power outlets that can draw a maximum of 1,500 watts of power from the battery, the vehicle provides a convenient and safe electrical power source that comes in handy for offsite jobs

and outdoor events as well as emergencies. At construction sites, the e-NV200 contributes to reducing noise levels by providing electricity in place of engine generators.

#### Progress in Plug-in Hybrid Vehicles

Plug-in hybrid electric vehicles (PHEVs) are hybrid cars that can run on electricity charged from an external source as well as fuel. With this combination of engines and electric motors, they provide motor operation equivalent to EVs. We are actively developing PHEVs, leveraging Alliance technologies with a view to launching them in the future.

#### Fuel-Cell Electric Vehicles

Powered by electricity generated from hydrogen and oxygen, fuel-cell electric vehicles (FCEVs) are another type of zero-emission vehicle that does not produce CO<sub>2</sub> or other harmful emissions. We believe that, as part of building a sustainable mobility society, both FCEVs and EVs are viable options from an energy diversity perspective.

In alignment with Japanese government policies, we joined forces with Toyota Motor Corp., Honda Motor Co. and other companies to establish Japan H2 Mobility, LLC (JHyM), targeting the full-fledged development of hydrogen stations for FCEVs in Japan. Addressing the key issues raised during the initial stage of FCEV promotion, JHyM will ensure that infrastructure developers, automakers and investors all do their part to support the successful strategic deployment of hydrogen stations and effective operation of the hydrogen station business in Japan.

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

In June 2016, Nissan unveiled 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 produce electricity with high efficiency using the reaction of oxygen with multiple fuels, including ethanol and natural gas.

Infrastructure to support e-Bio Fuel-Cell usage is relatively easy to deploy, and vehicles using this technology feature running costs as low as those of EVs, promising a smooth introduction to the market. Because our technology 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.

#### Development of the VC-Turbo

The VC-Turbo is the world's first production-ready variable compression ratio engine, first deployed in November 2017 in the new QX50, part of our INFINITI brand's premium vehicle lineup. The VC-Turbo has also been deployed in the United States, in the new Altima. It delivers the power of a V6 gasoline engine with greatly improved fuel economy.

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

#### Development and Introduction of New Powertrains

Nissan is working to enhance fuel economy by improving gasoline-powered engines, the engines that are still the most widely used in the automobile market.

In the United States, we launched the new Altima equipped with a newly developed 2.5-liter directinjection engine. The vehicle's direct-injection system, cooled exhaust gas recirculation system, electric intake valve timing control and mirror bore coating technology all combine to improve fuel economy. In Europe, we adopted a new 1.3-liter turbo gasoline engine in the Qashqai. The new engine features gasoline particulate filters to reduce air pollution, and improves fuel economy by 7% through reduced wear loss and optimized designs for the combustion chamber and turbo system.

In Japan, we launched the new Nissan Dayz in March 2019, a "kei" minicar equipped with a newly developed 0.66-liter gasoline engine. Its innovative powertrain combines a new continuously variable transmission (CVT) with a smart and simple hybrid system that achieves significantly improved fuel economy.

# Initiatives for Lighter Vehicles

#### Toward Lighter Vehicles

Making vehicles lighter is an important part of improving fuel economy. We are promoting vehicle weight reduction by optimizing vehicle body structure, developing better forming and joining techniques and substituting materials.

In 2013, we developed 1.2 gigapascal (GPa) Ultra High Tensile Strength Steel with High Formability, the world's first material to combine these levels of tensile strength and formability, and put it to use in the INFINITI Q50 (marketed in Japan as the Skyline), the Murano and the INFINITI Q60. In 2018, we adopted 980 megapascal (MPa) Ultra High Tensile Strength Steel with High Formability, which features further improvements in collision energy absorption performance, for the INFINITI QX50. 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 and lower total costs, and we have been expanding our use of this material in other models as well. It is already used for the body frame parts of the new Altima (1.2 GPa class/980 MPa class), launched in 2018, and the new Nissan Dayz (1.2 GPa class), launched in 2019.

We will continue to pursue ambitious development of weight reduction technologies, including these Ultra High Tensile Strength Steels, in order to reduce CO<sub>2</sub> emissions and dependence on newly extracted natural resources.

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## Initiatives for Partnerships with Society

#### Nissan Energy: Solutions that Enrich Life and Society with EVs

As part of our efforts to help build the EV ecosystem, we launched a group of solutions we call Nissan Energy. Nissan Energy has three main components, each of which is designed to support our customers' lifestyles with EVs in a different way.

#### Nissan Energy Supply

Nissan Energy Supply includes various electric charging solutions that bring ease and convenience to the lifestyles of our EV customers.

The majority of our EV customers find it convenient to charge their EVs at home. To help ensure that our vehicles can be charged safely, we guide customers to use suitable charging equipment and engage qualified installers to install electrical outlets dedicated to EVs.

The Nissan LEAF offers an ample driving range for daily use, but customers venturing further from home can make use of a fast-growing charging network.

Our dedicated EV app lets customers find and check the real-time status of charging stations. This not only makes charging easier and more convenient but also provides a seamless charging experience. As of the end of March 2019, approximately 24,000 quick chargers conforming to the CHAdeMO protocol have been installed worldwide.

#### Nissan Energy Share

The electricity stored in the Nissan EV's battery can do more than just power the vehicle; it can be shared with homes, buildings and local communities through power conditioning systems.

Using inexpensive electricity during off-peak periods and excess electricity generated by solar panels during daytime reduces electricity costs and helps promote a model of self-generation of electricity for self-consumption. Furthermore, Nissan Energy Share makes it possible for EVs to provide backup power during blackouts or emergencies.

Local communities can connect EVs to regional energy grids to store or discharge excess electricity, which contributes to the stability of the entire community's power grid and promotes renewable energy use. It is difficult to control precisely when electricity is generated by renewable energy sources like solar power, which has created high expectations for the potential of large-capacity EV batteries in particular to support our social infrastructure by storing renewable energy.

#### Nissan Energy Storage

The life of an EV battery is not over when it has finished its first life of powering a car. As more and more customers switch to EVs, the supply of batteries capable of secondary use is expected to increase significantly.

In 2010, Nissan, as an EV pioneer, joined forces with Sumitomo Corp. to establish 4R Energy Corp., which specializes in repurposing lithium-ion batteries. The intention is to fully utilize resources by promoting the four Rs of lithium-ion batteries—reuse, resell, refabricate and recycle—with the aim of building an efficient cycle of battery use.

# Reducing Congestion and Enhancing Environmental Performance with ITS

A vehicle's fuel economy depends not just on its own capabilities but also on how and where it is driven. We are using the Intelligent Transport Systems (ITS) as part of our active efforts to create infrastructure that will help to improve traffic environments. Starting in 2010, under commission from Japan's New Energy and Industrial Technology Development Organization (NEDO), we worked with the Beijing Municipal Commission of Transport. In the Chinese capital, we 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 lasting approximately a year, around 12,000 resident drivers in Beijing's Wangjing district used Portable Navigation Devices with DRGS and eco-driving support. Results from the experiment showed that DRGS cut travel time by 5.1% and increased fuel economy by 7.6%. Because avoiding busy roads and using less crowded routes disperses congestion, it can also make it possible to improve driving speeds across the entire area. Furthermore, by helping drivers 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 Beijing's traffic used DRGS, travel speed throughout the city would increase by approximately 10%, while both fuel consumption and CO2 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, we are conducting research projects in cooperation with Chinese government

authorities and universities aimed at raising air quality using ITS and EVs. We have learned that ecodriving support services, which encourage gentle braking and acceleration and maintenance of stable speeds, lead to safer driving. This can reduce traffic congestion caused by traffic accidents and help to improve air quality. Our study also proved that in China, which relies heavily on coal for power, EVs not only contribute to saving energy but also lead to reductions in air pollutants like PM2.5 and well-towheel CO<sub>2</sub> emissions. The research further indicates that use of bus lanes as reserved lanes for zeroemission vehicles will improve traffic flow, also contributing to reduction in CO<sub>2</sub> emissions and other positive environmental effects.

These research results, acclaimed by the Chinese government and the Beijing municipal government, are incorporated in their respective environmental plans. Nissan is promoting Nissan Intelligent Mobility (NIM) including new mobility services, and this research explores the potential effect of widespread NIM adoption on traffic and the environment.

We will continue to actively work toward improvement in urban environments and air quality.





#### Expanding EV Usage in California

California's active promotion of zero-emission vehicles has helped make it the U.S. state with the largest volume of private EV sales. Even so, drivers still tend to use EVs for short-distance travel such as shopping or commuting. At the request of NEDO, and with the California government's cooperation, Nissan Motor Co., Ltd. (NML) and Kanematsu Corp. started a project in November 2016 in partnership with U.S. charging infrastructure service provider EVgo to install over 55 fast chargers in more than 25 locations along one of California's most important travel arteries. Additionally, the project has created information service systems to guide EV users to the most appropriate fast charger. These initiatives are part of a pilot business to demonstrate the efficacy of expanding the driving range of EVs. The project is designed to expand the driving range of EVs to include intercity travel, and will run until September 2020, collecting and analyzing a range of EV data to establish models for further expansion of EV usage.

#### The Nissan New Mobility Concept

The Nissan New Mobility Concept is an ultracompact 100% electric vehicle that was developed in response to social trends like rising numbers of senior citizens, single-member households and the increasing use of automobiles for short-distance trips by just one or two people. Even smaller than a "kei" minicar, the Nissan New Mobility Concept offers the driver excellent visibility and a good feel for the dimensions of the vehicle, making it an ideal choice for use in residential neighborhoods and other areas with narrow streets and poor



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

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), we have conducted tests and surveys through driving trials held together with corporations and local governments. Based on MLIT's January 2013 announcement of an authorization system for use of ultracompact vehicles on public roads, we are currently testing vehicles in 25 areas, including the area covered by Choimobi Yokohama, a round-trip urban ride-sharing service that we operate 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, we have been testing ultracompacts as rental cars for sightseeing on the island of Shikine-jima, Tokyo, since May 2018. This is a trial business aimed at expanding the use of EVs on small islets, an idea promoted by the Tokyo metropolitan government.

We make full use of the knowledge and information acquired from all of our nationwide projects, offering advice on new uses for EVs and ways to improve traffic flow and implement smart mobility for the next generation.

\*Click here for more information (environmental data) on Climate Change (Products).

# CLIMATE CHANGE

# CORPORATE ACTIVITY INITIATIVES

Policies and Philosophy for Corporate Activity Initiatives 💙

Management of Corporate Activity Initiatives 💙

Corporate Activity Initiatives: Achievements 💙

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# Policies and Philosophy for Corporate Activity Initiatives

#### Reducing CO<sub>2</sub> Emissions from Corporate Activities

Nissan is taking steps to reduce its greenhouse gas emissions from corporate activities by promoting energy efficiency measures and also 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 established the goal of reducing its overall corporate CO<sub>2</sub> emissions by 80% compared with 2005 levels by 2050. As part of the Nissan Green Program 2022 (NGP2022), we set the midterm goal of a 30% reduction in overall corporate CO<sub>2</sub> emissions by 2022. Manufacturing is our largest emissions source, but we are 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

#### Long-Term Vision of Reducing CO2 Emissions from Corporate Activities

#### NGP2022 Long-Term Vision



As a long-term vision for climate change, we aim to realize an 80% reduction in CO2 emissions from corporate activities by 2050 (vs. 2005).



# Management of Corporate Activity Initiatives

## NGP2022 Objectives

The Nissan Green Program 2022 (NGP2022) includes the following objectives for each link in the value chain as we progress toward our long-term goals in 2050:

#### Overall

A 30% reduction in CO<sub>2</sub> emissions from global corporate activities by 2022 (vs. 2005/per vehicle sold)

#### Manufacturing

A 36% reduction in CO<sub>2</sub> emissions from global manufacturing sites by 2022 (vs. 2005/per vehicle manufactured)

#### Logistics

A 12% reduction in CO<sub>2</sub> emissions from logistics in Japan, North America, Europe and China by 2022 (vs. 2005/per vehicle manufactured)

#### Offices

A 12% reduction in CO<sub>2</sub> emissions from global offices by 2022 (vs. 2010/per floor area)

#### Dealerships

A 12% reduction in CO<sub>2</sub> emissions from dealerships in Japan by 2022 (vs. 2010/per floor area)

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GRI305-2

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GRI305-5

# Corporate Activity Initiatives: Achievements

## 30% Reduction in Emissions from Corporate Activities

In fiscal 2011, Nissan broadened the scope of its CO<sub>2</sub> reduction objectives to include logistics, offices and sales companies, as well as production sites. We expanded our emission-related initiatives, introducing high-efficiency equipment, energy-saving measures and the use of renewable energy, and also strengthened our management of these initiatives. Our objective is to reduce CO<sub>2</sub> emissions associated with corporate activities by 30% globally by fiscal 2022 compared to fiscal 2005 levels, as measured by the index of CO<sub>2</sub> emissions per vehicle (total emissions generated from Nissan global corporate activities divided by total Nissan vehicles sales volume). In fiscal 2018, we achieved a 31.4% reduction from the fiscal 2005 t-CO<sub>2</sub>/vehicle level.

GRI302-1 GRI302-4

## Saving Energy in Global Production

Most CO<sub>2</sub> emissions in the manufacturing process come from the consumption of energy generated by fossil fuels. We engage 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 automaker.

In the realm of production technology, we are introducing highly efficient equipment, improving manufacturing techniques and using energy-saving lighting in our assembly plants. Another key approach is our three-wet paint process. Vehicle painting is responsible for approximately 30% of all CO2 emissions from plants; and shortening or eliminating baking stages substantially reduces emissions.

The three-wet paint process adopted by Nissan removes the need to bake between the primer and the topcoat layers. Instead, layers are applied successively before baking, reducing CO<sub>2</sub> emissions by more than 30%, according to our calculations. Starting in 2013, we introduced this process at Nissan Motor Kyushu (NMK), the Smyrna Plant in the United States, the second Aguascalientes Plant in Mexico (operational since November 2013), the Resende Plant in Brazil (operational since February 2014) and the COMPAS (Cooperation Manufacturing Plant Aguascalientes) manufacturing complex, a joint venture with Daimler México that started operations in December 2017, as well as the Sunderland Plant in the

United Kingdom (operational since September 2018). At NMK, we were able to adopt the three-wet process with no shutdown of production lines, and as a result successfully shortened total production time. We also adopted dry paint booths at our Sunderland Plant in the United Kingdom. Previously, systems for recycling air expelled from booths for reuse needed dehumidifying processing to ensure that the air was at the humidity required. Dry paint booths can reuse air without dehumidifying it, reducing energy consumption to less than half its previous levels.





#### Oven process

Reduces CO2 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 our defined objectives for CO<sub>2</sub> emissions and energy use, we solicit facility proposals from each global site, preferentially allocating investment based on the potential CO<sub>2</sub> reduction compared to project costs. Making the value of carbon a key factor in internal evaluations lets us invest more efficiently and be more competitive. In Japan, we converted outdated facilities into cutting-edge highefficiency facilities with investments to improve energy efficiency, including energy-saving roof insulation upgrades.

Our plants use finely controlled lighting and air conditioning for low-energy-use and low-energy-loss operations. We promote CO2 emission reduction activities and introduced cutting-edge energyconservation technology from Japan in our plants worldwide. Around the globe, our plants learn and share best practices with each other, while Nissan Energy Saving Collaboration (NESCO) diagnoses energy loss at plants in regions where it is active and proposes new energy-saving countermeasures. These proposals amount to a potential reduction in CO2 emissions of some 53,000 tons in fiscal 2018, according to our calculations. A NESCO team was established for Japan in 2003, and activities have gradually been initiated in other countries starting in 2013. A NESCO team has also been launched to support energy-saving efforts at Alliance partner Renault.

When sourcing energy, we consider the balance of CO<sub>2</sub> emissions for the entire company alongside renewable energy usage rate and cost, choosing suppliers best suited for achieving each goal. Through such activities, CO<sub>2</sub> emissions per vehicle produced in fiscal 2018 were brought down to approximately 0.50 tons, a reduction of 33.7% from the fiscal 2005 level.

#### Energy Input

						(
	Unit	2014	2015	2016	2017	2018
ōtal	MWh	9,474,368	9,683,528	10,189,082	9,532,840	9,252,73
Japan	MWh	4,191,517	4,115,353	4,497,562	4,084,912	3,700,53
North America	MWh	2,424,942	2,583,613	2,643,303	2,452,299	2,570,43
Europe	MWh	1,156,519	1,107,279	1,093,103	1,126,186	1,048,20
Other	MWh	1,701,391	1,877,283	1,955,115	1,869,443	1,933,56
Primary		1		1	1	
Natural gas	MWh	3,060,122	3,346,141	3,537,674	3,701,640	3,579,99
LPG	MWh	295,800	303,826	249,426	179,945	191,40
Coke	MWh	199,801	206,307	217,431	218,618	200,52
Heating oil	MWh	225,114	188,943	209,232	147,522	113,20
Gasoline	MWh	322,624	302,564	303,040	299,000	259,04
Diesel	MWh	99,045	55,099	57,488	48,259	53,07
Heavy oil	MWh	58,274	34,289	43,853	27,652	15,99
External	-	1		1	I	
Electricity (purchased)	MWh	5,084,989	4,979,114	5,247,663	4,755,897	4,711,46
Renewable energy*1	MWh	154,515	141,076	157,226	133,212	135,57
Chilled water	MWh	4,239	12,116	12,919	6,661	7,48
Heated water	MWh	4,635	4,630	4,690	5,000	5,00
Steam	MWh	110,953	100,000	136,593	128,038	102,32
Internal						
Electricity (in-house generation)	MWh	8,772	9,423	11,847	14,609	13,21
Renewable energy* <sup>2</sup>	MWh	8,772	9,423	11,847	14,609	13,21
Total renewable energy	MWh	163,287	150,499	169,073	147,821	148,78

 $^{\ast}1$  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.

(FY)

#### Global Energy Consumption

The total energy consumption of our global corporate activities during fiscal 2018 was about 9.253 million MWh, a 3% decrease from fiscal 2017. This reduction was primarily due to the promotion of energy-saving activities at facilities and a decline in total production volume. Production sites globally accounted for 8.161 million MWh\* of total energy consumption.



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

#### Carbon Footprint of Corporate Activities

	Unit	2014	2015	2016	2017	2018
Scope 1	t-CO2	861,457	926,790	963,661	912,476	889,444
Scope 2	t-CO2	2,422,410	2,547,951	2,614,028	2,394,109	2,339,883
Scope 1+2	t-CO2	3,283,867	3,474,741	3,577,689	3,306,584	3,229,327
Japan	t-CO2	1,267,676	1,479,572	1,579,089	1,333,335	1,208,303
North America	t-CO2	769,696	800,724	823,340	683,332	738,234
Europe	t-CO2	290,109	208,088	176,285	228,998	221,692
Other	t-CO2	956,386	986,359	998,976	1,060,920	1,061,098
Scope 3	t-CO2	143,678,000	144,145,000	150,462,000	213,715,000	203,106,900

(FY)

In fiscal 2018, the total of Scope 1 and 2 emissions was 3.229 million tons. Total CO<sub>2</sub> emissions from manufacturing processes were 2.610 million tons (Scope 1 emissions: 0.759 million tons; Scope 2 emissions: 1.850 million tons).\*

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

#### Carbon Footprint of Manufacturing Activities



(1,000t-CO<sub>2</sub>)

#### Manufacturing CO2 per Vehicle Produced



In fiscal 2018, our manufacturing CO2 emissions per vehicle produced were 0.49 tons, 33.7% less than fiscal 2005, representing steady progress toward our fiscal 2022 goal.

GRI302-1 GRI302-4

## Promoting Renewable Energy

Nissan takes three approaches toward promoting the adoption and integration of renewable energy in line with the characteristics of each region: (1) generating our own power in company facilities; (2) sourcing energy with a higher proportion of renewables; and (3) leasing land, facilities and other assets to power companies.

As an example of the first approach, our Sunderland Plant in the United Kingdom introduced 10 wind turbines supplying up to 6.6 MW of power. The plant also has a 4.75-MW solar farm, installed in 2016, and together these renewable sources account for about 8% of the power it uses. At our Iwaki Plant, the guest hall for plant visitors is powered by solar energy. By storing surplus electricity in secondhand Nissan LEAF batteries, the plant both stabilizes the energy supply and uses resources more effectively. At the Huadu Plant of Dongfeng Nissan Passenger Vehicle (DFL-PV) in China, solar panels with a total capacity of 30 MW have been in operation since 2017, providing roughly 8% of the electricity used at the plant. In India, plans are underway to build a 2 MW solar generation facility, scheduled to start operation in September 2019 at the Renault Nissan Automotive India (RNAIPL). These projects are part of our efforts to expand the use of renewable energy globally.

Regarding the second approach, our 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, we 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, we have enhanced the renewable energy usage rate at our production plants as part of reducing CO<sub>2</sub> emissions. In fiscal 2018, our renewable energy usage rate reached 10%.

## More Efficient Logistics and Modal Shifts

In 2000, Nissan began sending chartered trucks for pickup and delivery of parts. This approach adopted widely across the company, including at overseas manufacturing sites—has increased global operational efficiency. We work together with suppliers to optimize the frequency of deliveries and transport routes and improve packaging specifications for better loading ratios so fewer trucks are required. We are also pursuing a modal shift from trucks to rail for transport.

Through a 2014 expansion of this approach to include cooperative transport of production parts with other original equipment manufacturers (OEMs), in addition to complete vehicles and service parts, we are seeking further efficiency in this area. We work from the design stage of new vehicles to reduce transportation distances by sourcing necessary production components for plants through localization as much as possible.

Our engineers devise efficient packaging for the huge number of parts of different shapes and materials that go into automobiles. Through simultaneous-engineering logistics, we work from the design stage to create parts and develop new vehicles that enhance transportation efficiency, as well as reduce parts shipments per vehicle.

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

We constantly review transport methods and are currently undertaking a modal shift to rail and maritime transport. Some 80% of completed vehicles in Japan are now transported by sea. Parts shipments to NMK from the Kanto area in and around Tokyo 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 or ship, depending on the destination. In China, we are increasing the proportion of completed vehicles that are transported domestically by ship or rail.

Since 2010, we have also been promoting the use of energy-efficient vessels for sea shipments of our vehicles. Today, our fleet has grown to include seven energy-efficient car carriers.\*<sup>1</sup>

As we expand our global logistics operations, we will continue to increase efficiency and effect a modal shift in transportation, targeting a 12% reduction in CO<sub>2</sub> emissions by fiscal 2022 compared to fiscal 2005 levels, as measured by the index of CO<sub>2</sub> emissions per vehicle.\*<sup>2</sup> In fiscal 2018, CO<sub>2</sub> emissions per global vehicle were approximately 0.37 tons—a reduction of about 14.3%.

\*1 More information can be accessed 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.

## CO2 Emissions from Logistics

	Unit	2014	2015	2016	2017	2018
Total	t-CO2	1,608,582	1,598,891	1,925,281	1,567,248	1,482,982
Inbound*	t-CO2	822,867	797,034	809,088	739,610	762,314
Outbound*	t-CO2	785,715	801,857	1,116,193	827,638	720,667
Sea	%	18.5	18.3	17.8	20.0	19.9
Road	%	60.5	65.7	62.1	64.6	60.3
Rail	%	5.1	5.4	5.6	7.0	6.7
Air	%	15.9	10.6	14.5	8.4	13.1

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

In fiscal 2018, CO<sub>2</sub> emissions from logistics were 1,482,982 tons, down approximately 5.4% from the previous fiscal year. Emissions from transportation of parts declined due to the localization of complete vehicle assembly and parts procurement, making a substantial contribution to the reduction of our overall CO<sub>2</sub> emissions.



#### CO2 Emissions per Vehicle Transported

In fiscal 2018, despite an expansion in global production, CO<sub>2</sub> emissions per vehicle transported were 0.37 tons, an improvement over the previous fiscal year.

(FY)

## Office Initiatives

We promote efforts to reduce CO<sub>2</sub> emissions at Nissan offices in Japan, North America, Europe and China.

In Japan, through Nissan Trading, we operate the Nissan Power Producers and Suppliers (PPS) scheme, sourcing clean energy for which CO<sub>2</sub> emissions and costs have been taken into account through Japan's PPS system. In 2018, approximately 26,657 MWh of clean energy was supplied to five Japanese business locations.\*

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.

Our efforts go beyond just CO<sub>2</sub> management. We are pursuing other environmentally-friendly policies, such as improving our 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 required 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).

GRI103-1 GRI103-2

## Green Building Policy

Based on ISO 14001 management processes to evaluate environmental impact, we make it a key task to optimize our buildings during construction or refurbishing to make all our structures greener. Evaluation metrics in this area include environmental footprint, such as CO<sub>2</sub> emissions; waste and emissions from construction methods; and use of hazardous materials and other quality control issues. Furthermore, one performance index for Nissan in Japan is MLIT's Comprehensive Assessment System for Built Environment Efficiency (CASBEE).

Among our current business facilities, our 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.

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 CO2 management at dealerships with the aim of reducing total emissions per floor area by 1% each year. Our retail outlets also work continually to increase energy efficiency. Many have adopted highefficiency air conditioning, insulation films, ceiling fans and LED lighting. During renovation work, some outlets have installed lighting systems that make use of natural daylight, as well as insulated roofs. In addition, to source electricity with low environmental load, we have broadened supply from PPS systems, including our own, to provide 143,183 MWh of power



Solar panels installed on the roof of a Kanagawa Nissan dealership. Power from the panels is supplied to dealerships through the Nissan PPS system.

(equivalent to an annual reduction of some 3,278 tons in CO2 emissions) to 1,023 retail outlets in the Kanto, Chubu, Tohoku, Kansai and Kyushu regions.

Since April 2000, we have run a unique environmental facility certification system based on ISO 14001 for dealerships called "Nissan Green Shop." Our environmental policy requires all dealerships in Japan to meet certain standards and undergo annual audits performed by our teams. The dedicated evaluation sheet has a total of 84 key performance indicators (KPIs) and is regularly revised to reflect the requirements of national legislation, local communities and the Nissan Green Program (NGP).

# AIR QUALITY

Air Quality Policies and Philosophy V

Air Quality: Achievements 💙

GRI103-1 GRI103-2

# Air Quality Policies and Philosophy

By reducing exhaust emissions and providing a pleasant in-cabin environment to customers, Nissan aims to develop mobility that is more considerate of ecosystems and makes daily life healthier. According to the *State of Global Air 2018* report issued by the U.S.-based Health Effects Institute (HEI), 95% of the world's population currently lives in regions where particulate matter smaller than 2.5 µm (PM2.5) exceeds the 10 µg/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 automaker, air pollution stands alongside climate change and congestion as an issue for cities in particular that must be remedied. Nissan is advancing its efforts to improve air quality with two approaches:

#### 1. Promoting Zero-Emission Vehicles

Electric vehicles (EVs), such as the Nissan LEAF, which has cumulative global sales of 400,000 units as of March 2019, are an effective tool for reducing air pollution in urban areas. As a leader in this field, we are promoting zero-emission mobility and infrastructure construction in partnership with national and local governments, electric power companies and other industries.

## 2. Enhancing Internal Combustion Engines

We have proactively set voluntary standards and emission-reduction targets for conventional internal combustion engines. With the ultimate goal of making automotive emissions as clean as the atmosphere itself, we have developed a wide range of technologies and achieved the results listed below through cleaner combustion technologies, catalysts for purifying emissions and countermeasures against gas vapors from gasoline tanks. We will continue our efforts to ensure cleaner exhaust emissions from internal combustion engines, which remain the most commonly used in the automotive market.

- Sentra CA (released in the United States in January 2000): The world's first gasoline-powered vehicle that satisfied all the exhaust gas requirements set by the California Air Resources Board to receive Partial Zero Emissions Vehicle (PZEV) certification.
- Bluebird Sylphy (released in Japan in August 2000): The first passenger vehicle made in Japan to achieve Ultra-Low Emission Vehicle (U-LEV)\* certification.
- \*U-LEV: Vehicle that produces 75% less nitrogen oxide (NOx) and nonmethane hydrocarbon (NMHC) than the 2000 emission standards level in Japan.

## Improving In-Cabin Air Quality

With autonomous drive technologies currently in development and 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. The Nissan Green Program 2022 (NGP2022) calls for research and development not just to make exhaust emissions cleaner but also to improve in-cabin air quality as well.

As part of our continued efforts to reduce volatile organic compounds (VOCs)\* such as formaldehyde and toluene, Nissan is further reviewing materials for seats, door trim, floor carpet and other parts as well as adhesives. We voluntarily set more stringent standards than those of the Japanese government and automotive industry body regulations, and have applied them to all new vehicles introduced to the market from July 2007 onward.

\*VOCs: Organic chemicals that readily evaporate and become gaseous at normal temperature and pressure conditions.

# Reducing VOC Emissions from Production

Nitrogen oxide (NOx), sulfur oxide (SOx) and VOCs are recognized as common forms of emissions created by vehicle manufacturing facilities. We are taking firm measures with respect to all three; ensuring that management standards and systems for atmospheric emissions are thoroughly followed; and working to reduce both VOC exhaust volumes and the use of VOC-emitting substances to levels lower than required by national regulations.

We are actively working to increase the recovery of cleaning solvents and other chemicals in order to reduce the amounts of these substances emitted from our plants ahead of the implementation of new regulations in each country where we operate. Also, we are systematically introducing water-based paint lines that emit fewer VOCs and improving thinner-solvent recycling rates to reduce our use of VOC-emitting substances.

As one example, the water-based paint line in the Nissan Motor Kyushu Plant has VOC emissions of less than 20 grams per square meter of painted surface, which is top-class in the industry. These lines have also been adopted at two Aguascalientes plants in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the United States, the Huadu Plant in China and other plants.

Car manufacturing consumes a large amount of heat during painting and other processes. We have lowered NOx and SOx emissions from ovens and boilers that provide heat for painting lines by introducing low-NOx burners and switching from heavy oil and kerosene to fuels with low SOx emissions.

#### GRI103-3 GRI305-7

# Air Quality: Achievements

GRI305-5

(FY)

## Compliance with Emissions Regulations (Passenger Cars Only)

Nissan not only works to develop and promote zero emission electric vehicles (EVs) but continues to promote cleaner exhaust emissions from all of our engines. For example, the Qashqai released in Europe in October 2018 has a new fuel-efficient 1.3-liter turbo gasoline engine fitted with a particulate filter that meets the Euro 6d-Temp\* emissions standard. In Japan, our e-POWER electrification technology has resulted in a significant lowering of fuel consumption while achieving 75% reductions in exhaust emissions from 2005 standards. As part of these efforts, our compliance with emissions regulations goes far beyond current legal requirements to meet more stringent specifications. Due to differences in regulations, there is no direct way to compare by region or country, but the table below shows the percentage of Nissan vehicles in each location produced to the strictest local standards.

\*Euro 6d-Temp: All Euro 6 standards and the initial Real-Driving Emissions (RDE) limit for new car models.

#### Compliance with Emissions Regulations (By Region)

			(, , ,
		Unit	2018
Japan	75% lower than 2005 standard and 50% lower than 2018 standard	%	99.5
Europe	Euro 6b/c	%	100*
U.S.	U-LEV/SULEV/ZEV	%	99.8
China	National 5	%	100

\*Passenger cars and light commercial vehicles only.

## Plant Emission Management

We thoroughly implement systems and control standards at our production plants to reduce the amount of air pollutants emitted during operation. Our air pollution control targets are more stringent than those mandated by the countries in which we operate.

In Japan, we have adopted strict measures for emissions of NOx and SOx pollutants from our factories, reducing the amount of these emissions to one quarter of the levels emitted in the 1970s. We have lowered NOx and SOx emissions by introducing low-NOx burners in the ovens and boilers that provide heat for painting lines, and by switching the fuel used by those burners from heavy oil and kerosene to alternatives with low SOx emissions.

## Lower VOC Emissions

Volatile organic compounds (VOCs), which readily evaporate to become gaseous in the atmosphere, account for approximately 90% of the chemicals released as the result of our vehicle production processes. Lowering VOC emissions is a challenge that we are working to address. We strive to increase our recovery of cleaning solvents and other chemicals in order to limit the amounts of these substances emitted from our plants ahead of implementation of new regulations in each country where we operate, while also advancing planned measures to increase the recycling rate for waste solvents. We are also introducing water-based paint lines that limit VOC emissions to less than 20 grams per square meter of painted surface. We have adopted these lines in 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, the Huadu Plant in China and the Sunderland Plant in the United Kingdom. We achieved a reduction of 27.2% in fiscal 2018 in VOC emissions per painted surface area compared with fiscal 2010 levels.

\*Click here for more information (environmental data) on Air Quality.

# **RESOURCE DEPENDENCY**

Resource Dependency Policies and Philosophy Resource Dependency Management Resource Dependency: Achievements Resource Dependency: Achievements in Waste Reduction 

#### GRI103-1 GRI103-2

# 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 (SDGs) 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, we must become more competitive as we pursue green growth. Working toward the long-term vision of reducing dependency on new materials by 70% by 2050, we are striving to minimize our use of natural resources in order to maintain our new resource usage at 2010 levels.

#### Long-Term Vision for Reducing Resource Dependency



#### GRI103-2 GRI103-3

# **Resource Dependency Management**

In order to use the Earth's precious and limited resources efficiently, the environmental impact when extracting these resources must be kept to a minimum. At the same time, waste generated during vehicle production and scrap from end-of-life parts must be recycled as extensively as possible without compromising quality, producing materials that can be used in the same types of products. Based on this approach, known as closed-loop recycling, we have focused our efforts on recycling steel, aluminum and resin—three kinds of material which account for a large proportion of vehicle content yet also have a major impact on the environment.

As part of the Nissan Green Program 2022 (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. In order to use resources efficiently with less energy, we will promote the use of recycled materials and recycling end-of-life vehicles, and strive to incorporate reusable resources in our activities at the design, purchasing and manufacturing stages. We also aim to use fewer resources overall, both through appropriate use of chemical substances and making vehicles more lightweight. We will continue to promote the efficient use of resources with further reduced energy requirements and the expanded use of repaired and remanufactured parts as well as the secondary use of electric vehicle (EV) batteries in the vehicle use stage, and foster the development of biomaterials and dieless forming technology for practical use. We will also increase the value cars provide to society and ensure that cars can be put to best use by promoting electrification and autonomous drive in our products, pursuing connectedness and providing mobility services such as ride sharing.

#### Circular Economy Concept



# Resource Dependency: Achievements

## Reducing Dependence on Newly Extracted Resources to 70%

Demand for mineral and fossil resources is rising rapidly with the growth of emerging economies. According to forecasts, if growth in extraction volumes continues, all currently known mineral resources will have been extracted by 2050. There are some existing mining sites and others under exploration that are located in areas with vulnerable local ecosystems, generating concern about the environmental effects of topsoil excavation, deforestation and wastewater.

To address these issues, Nissan has implemented a policy of minimizing the use of newly extracted natural resources and maximizing the use of recyclable materials from the early development stage while also making structural improvements to facilitate recycling. We are also reducing the use of resources in the manufacturing process and making more efficient use of resources.

In the Nissan Green Program 2022 (NGP2022), our goal is to cut the use of newly extracted resources by 30% per vehicle in fiscal 2022. We intend to increase the use of recycled materials in our vehicles on a global scale, including Japan, Europe and North America, in cooperation with our suppliers. Initiatives to Expand Use of Recycled Materials (Ferrous and Nonferrous Metals)

In 2018, ferrous metals accounted for 61% of the materials used in our automobiles by weight. Nonferrous metals made up another 15% and resins 14%, with miscellaneous materials making up the final 10%. To further reduce our use of natural resources, we are advancing initiatives to expand the use of recycled materials in each of these categories.

We are taking steps to reduce the steel and aluminum scrap left over in the manufacturing process, and working globally with business partners to collect and reuse this scrap as material for new vehicles through closed-loop recycling initiatives. For example, we use electric-furnace sheet steel made from steel scraps in the Rogue, Murano and other vehicles produced in North America. End-of-life aluminum wheel rims are also collected for recycling to be used in new wheel and chassis components. In fiscal 2018, we collected about 3,030 tons of used wheel rims.

#### Initiatives to Expand Use of Recycled Materials (Resins)

In addition to our initiatives to expand use of recycled steel and aluminum, Nissan also strives to use more recycled resins. As a closed-loop recycling initiative, we are collecting finished bumper scrap generated at our plants and sending it to our Oppama Plant, where we process it by removing the paint film and recycling it. These recycled resins have been given new life as bumpers



ASR (left) and the resin extracted from it (right).

in the Nissan LEAF and many other new vehicles. This initiative was expanded to Dongfeng Motor Co. (DFL), our joint venture in China, where they have been used to produce replacement bumpers since 2014.

Additionally, exchanged bumpers collected from dealerships are being recycled as materials used in under covers and for other components. An enhanced bumper return program allowed us to collect and recycle about 164,800 bumpers in fiscal 2018, representing 80.0% of bumpers removed at Japanese dealerships.

Furthermore, 30% of the automotive shredder residue (ASR) processed at dedicated processing plants is made up of resins. In order to use these resins in automobiles, we are running a number of R&D projects on topics like optimizing the recycling process for resins recovered from ASR, liquidation of auto waste plastic and recycling polypropylene with microbes.\*

<sup>\*</sup>These R&D projects are undertaken as part of our recycling optimization support business using surplus money from recycling fees deposited for three specified components (refrigerant, airbags, ASR) based on Japan's End-of-Life Vehicle Recycling Law.

and put both into operation in fiscal 2018.

## **ELV Programs**

Nissan considers the three Rs—reduce, reuse and recycle—from 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.\*

We have also joined forces with other automotive companies to promote the recycling of end-of-life vehicles (ELVs) through dismantling and shredding. We have achieved at least 95% effective recycling rate of ELVs in Japan since fiscal 2006. In fiscal 2018, we achieved a final recovery ratio for ELVs of 99.6% in Japan (as calculated by Nissan in accordance with the End-of-Life Vehicle Recycling Law), greatly exceeding the target effective recycling rate of 95% set by the Japanese government. ELV processing consists of four phases. First, 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 like lithium-ion batteries are collected individually and directed to a dedicated recycling process. Third, residues from the dismantling process are crushed and the metallic portions recovered. Fourth, the resulting ASR is turned into recycled materials. Since 2004, Nissan and 12 other Japanese auto manufacturers have supported ASR recycling facilities, as called for in Japan's End-of-Life Vehicle Recycling Law, as an integral part of a system to recycle ASR effectively, smoothly and efficiently. Nissan is taking an important role in this joint undertaking. We have also established a 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 in alignment with a European ELV directive. Additionally, the Japan Automobile Manufacturers Association, Inc. established a common scheme for recovering used lithium-ion batteries along with a system for processing these batteries appropriately,

<sup>\*</sup>Calculated based on 1998 Japan Automobile Manufacturers Association definition and calculation guidelines (in Japan) and ISO 22628 (in Europe).

## **Developing Biomaterials**

Nissan is promoting technical research to replace plastics and other resin materials used in automobiles with biomaterials derived from plants. NGP2022 contains concrete goals for biomaterials development, and these materials are already being used in cars. For example, the coverings on the seats in the new Nissan LEAF are made using biomaterials.



Seat coverings made from biomaterials in the new Nissan LEAF.

GRI305-7

## Proper Use of Regulated Chemical Substances

Nissan revised its standard for the assessment of hazards and risks in the Renault-Nissan Alliance, actively applying restrictions to substances not yet covered by regulations but increasingly subject to consideration around the world. As a result, the number of substances covered by the Nissan Engineering Standard in fiscal 2018 rose to 4,043. These steps are thought to be necessary for future efforts in the repair, reuse, remanufacture and recycle loop for resources.

> Click here for more information on chemical substances governance.

#### (Substances) 4,043 3.912 4,000 3,216 3,216 3,500 2.897 3,000 2,500 2,000 1,500 1,000 2014 2015 2016 (FY)

2017

2018

**Defined Chemical Substance** 

## 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, we collect and thoroughly check the quality of these secondhand parts. Those that receive a passing grade are sold through our retail outlets as Nissan Green Parts. We sell these parts in two categories: remanufactured parts, which are disassembled and have components replaced as needed, and reusable parts, which are cleaned and tested for quality before sale.

In NGP2022, we are enhancing the deployment of Nissan Green Parts in Japan, and we're also strengthening management to deploy similar kinds of activities in Europe and North America, aiming for twice the parts coverage in 2022 compared to 2016. This initiative provides customers who seek to use cars for a long period of time with the new option of using remanufactured parts.







Air conditioning compressor

Alternator

Starter motor

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

Lithium-ion batteries used in Nissan's electric vehicles (EVs) retain capacity well beyond the useful life of the vehicles themselves. The "4R" business model—which reuses, refabricates, resells and recycles lithium-ion batteries—allows for their effective use as energy storage solutions in a range of applications, thus creating a much more efficient energy cycle of battery use.

As the EV market expands, we anticipate a need to utilize reusable lithium-ion batteries more effectively. In 2010, we launched 4R Energy Corp., a joint venture with Sumitomo Corp., that is developing and testing the use of EV batteries in 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 already sells systems for houses and apartment buildings.

4R Energy is actively developing a range of storage systems built with used Nissan LEAF lithium-ion batteries. In July 2015, the Nissan Advanced Technology Center (NATC) adopted an energy management system built from 24 used Nissan LEAF batteries. A factory for the reuse and refabrication of used lithium-ion batteries from EVs, the first of its kind in Japan, began operation in the town of Namie, Fukushima Prefecture, from March 2018. Reused and refabricated lithium-ion batteries are also sold as replacement batteries for EVs and used in stationary power storage systems, electric forklifts and other applications.

We are extensively involved with 4R activities globally as well.

#### 4R Concept



Used batteries can be recycled to recover useful resources.

## Reducing Use of Scarce Resources

Rare earth elements are scarce resources that are necessary components of EV and hybrid electric vehicle (HEV) motors. Reducing their usage is important because of procurement challenges, as rare earth elements are unevenly distributed around the globe, and the shifting balance of supply and demand leads to price fluctuations.

Nissan is expanding its use of an electric motor developed in 2012 that requires 40% less dysprosium (Dy) compared to conventional EV motors. The motor was first adopted in the Nissan LEAF, and reduced-dysprosium motors are now seeing increased use in hybrid vehicles as well. The 2016 Note e-POWER achieves a 70% reduction in Dy in its motor magnets, and these were also adopted for the new Nissan LEAF in 2017 and the Serena e-POWER in 2018. We are conducting technical research on further reductions for the future and have the ultimate goal of achieving zero usage of Dy in other components as well.

# Resource Dependency: Achievements in Waste Reduction

## 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. At the end of fiscal 2010, we achieved a 100% recovery rate at all of our production sites in Japan, including five manufacturing plants, two operation centers and five affiliates. Overseas, we have reached 100% rates at plants in Mexico, China, Thailand, Spain and elsewhere. We are striving to bring rates to industry-leading levels in each global region.

We have been making great efforts to reduce the number of wooden pallets and cardboard boxes used in import and export parts shipping. We began replacing them with units made from steel more than 30 years ago, and we rolled out plastic substitutes over 20 years ago that are foldable and can be reused. We have also been working with our Alliance partner Renault to expand use of globally standardized, returnable containers. Through design activities carried out concurrently with logistics operations, we have recently considered ways to optimize the shape of parts from the development stage, thus helping to reduce the packaging materials required.

Through such efforts, we plan to reduce waste from our production factories by 2% annually in Japan and by 1% annually worldwide—as compared to business as usual (BAU), that is, waste levels expected if no special steps had been taken.

#### Waste

For fiscal 2018, waste generated totaled approximately 206,645 tons. From fiscal 2018, the boundary of waste data covered by third-party assurance has been expanded globally, which resulted in an increase in the number of reporting sites. Waste generated globally from production sites in fiscal 2018 was 189,282 tons.\*

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

						(FY)			
	Unit	2014	2015	2016	2017	2018			
Total	ton	173,513	159,345	158,939	152,674	206,645			
By region									
Japan	ton	59,808	63,630	61,115	61,327	69,829			
North America	ton	58,452	49,129	45,459	35,177	64,514			
Europe	ton	45,358	37,204	41,110	45,268	49,662			
Other	ton	9,895	9,382	11,255	10,903	22,639			
By treatment method	:								
Waste for disposal	ton	13,153	11,355	8,707	8,041	7,231			
Recycled	ton	160,360	147,990	150,231	144,633	199,414			

\*Click here for more information (environmental data) on Resource Dependency (Facility Waste).

# WATER SCARCITY

Policies and Philosophy for Water Resource Management V

Water Resource Management 💙

Water Resource Achievements 💙

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# Policies and Philosophy for Water Resource Management

Demand for water is expected to continue 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 extreme weather events, natural disasters, water crises and other water-related risks rank highly in the annual Global Risks Report issued by the World Economic Forum. "Clean Water and Sanitation" is also one of the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015. The 1.5°C Special Report\* released by the Intergovernmental Panel on Climate Change (IPCC) in 2018 reported that risks and effects from extreme weather events, such as heavy rain and drought, would increase if temperatures rose by  $1.5^{\circ}$ , and that such risks and effects would be even more severe and become widespread if temperatures rose by  $2^{\circ}$ . Water resource management to mitigate water shortages, flooding and many other challenges is a key factor in promoting sustainable development. Globally, the agricultural sector accounts 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, we believe that reducing dependence on water resources is important to being a sustainable company and are taking steps to improve water quality management and reduce water usage across our production sites.

\*Full title: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty.

# Water Resource Management

Nissan manages wastewater quality to even stricter standards than required by local regulations at each of its production sites. At sites in Japan, we have further strengthened measures against water pollution by attaching water quality sensors to the discharge points of our wastewater treatment facilities to automatically suspend water discharge if water quality problems are detected. Processing recycled water using reverse osmosis (RO) systems has allowed some sites to achieve zero wastewater discharge.

#### **Global Water Risks**



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

Under the Nissan Green Program 2022 (NGP2022), we aim to reduce water intake at global production sites by 21% by 2022. In order to achieve this, we are taking steps to reduce water usage, such as sharing best practices among plants, investing in equipment and expanding the Nissan Energy Saving Collaboration (NESCO) team into "r NESCO" (r[esource] NESCO) to address not just energy-saving issues but also those involving water usage and waste.

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

#### GRI103-2 GRI103-3 GRI306-1

# Water Resource Achievements

#### Water Use Reduction

Plants producing Nissan vehicles and parts are located throughout the world, and they all use water as part of the production process. Nissan strives to manage and reduce water usage at every plant, aiming to achieve a 21% reduction per vehicle produced by fiscal 2022 from 2010 levels. As of fiscal 2018, we had already reduced water usage by 18.7%, when compared to 2010.

To help achieve this goal, we built reservoirs to collect rainwater at the Chennai Plant in India



Water Usage per Vehicle Produced (Global)

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. Our efforts at the Chennai Plant, in particular, were recognized as an excellent example of water resource management by the Confederation of Indian Industry (CII). At Nissan North America (NNA), plants are competing among themselves to find new ideas for reducing water usage, such as by filtering wastewater from prepainting processes and thus improving water quality.

We are also working to reduce water usage at Nissan's Global Headquarters in Yokohama, Japan by processing rainwater and wastewater from kitchens and other internal sources to be reused for flushing toilets and watering some plants.



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

Since 2014, the service centers of Nissan Motor India (NMIPL) have offered customers car washes that utilize an advanced foam washing technique.

A traditional car wash requires about 160 liters of water for one car, but NMIPL's new 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 Nissan service centers in India reached roughly 6,100 kiloliters—equivalent to the daily water consumption of 25,000 Indian households.

Along with reducing water consumption, the foam wash service is environmentally friendly due to the non-use of hard chemicals, shortens washing time, and even enhances the gloss of cars by roughly 40%.

GRI303-1

(FY)

### Water Input for Corporate Activities

In fiscal 2018, water input for corporate activities was 26,420,000 m<sup>3</sup>, a 1% increase compared with the fiscal 2017 level. Water input from production sites was 25,093,377 m<sup>3</sup>.\*

	Unit	2014	2015	2016	2017	2018
Total	1,000 m³	29,162	28,570	29,118	26,197	26,420
Japan	1,000 m³	15,018	14,990	15,563	13,115	13,022
North America	1,000 m³	5,419	5,427	5,483	4,905	4,930
Europe	1,000 m³	2,310	2,330	2,299	2,155	2,093
Other	1,000 m³	6,415	5,823	5,774	6,023	6,376

## Cleaner Effluent Through Wastewater Treatment

Nissan thoroughly processes wastewater at its various plants. Wastewater from two Nissan plants in Aguascalientes, Mexico, is used to maintain landscaping on the sites, with no offsite discharge. We also are strengthening water pollution prevention measures in our Japanese plants. In preparation for unexpected occurrences, such as the discharge of oil, we have 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.

(FY)

					()
Unit	2014	2015	2016	2017	2018
1,000 m³	20,938	20,680	20,516	17,410	17,345
1,000 m³	13,358	12,976	12,681	10,376	10,472
1,000 m³	3,550	3,916	4,028	3,382	3,190
1,000 m³	1,793	1,740	1,767	1,564	1,539
1,000 m³	2,237	2,048	2,040	2,088	2,143
	1,000 m <sup>3</sup> 1,000 m <sup>3</sup> 1,000 m <sup>3</sup> 1,000 m <sup>3</sup>	1,000 m³ 20,938   1,000 m³ 13,358   1,000 m³ 3,550   1,000 m³ 1,793	1,000 m³ 20,938 20,680   1,000 m³ 13,358 12,976   1,000 m³ 3,550 3,916   1,000 m³ 1,793 1,740	1,000 m³ 20,938 20,680 20,516   1,000 m³ 13,358 12,976 12,681   1,000 m³ 3,550 3,916 4,028   1,000 m³ 1,793 1,740 1,767	1,000 m³ 20,938 20,680 20,516 17,410   1,000 m³ 13,358 12,976 12,681 10,376   1,000 m³ 3,550 3,916 4,028 3,382   1,000 m³ 1,793 1,740 1,767 1,564

Quality						
Chemical oxygen demand (COD) Japan only	kg	27,883	28,042	29,730	26,451	21,149

\*Click here for more information (environmental data) on Water Resource Management.


# THIRD-PARTY ASSURANCE



[Remarks] Basis of calculation for CO<sub>2</sub> emissions, waste generated and water input subject to thirdparty assurance

- CO2 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 CO2 emissions coefficient publicly available for each production site.
- CO2 emissions resulting from employees' commute: Calculated based on the GHG Protocol Scope 3 Standard. Specifically, the annual CO2 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.
- CO2 emissions from the use of sold products: Calculated using the average regional CO2 emissions per vehicle multiplied by the regional estimated average lifecycle mileage and multiplied by fiscal 2016 sales volumes. The average CO2 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 FOUNDATIONS TO ADDRESS ENVIRONMENTAL ISSUES

Environmental Governance V

Lifecycle Assessment to Reduce Environmental Impact V

Stakeholder Engagement 💙

## **Environmental Governance**

> Click here for more information on our Global Environmental Management Framework and Governance System.

### Enhancing Environmental Management Based on ISO 14001

As of January 2011, the Nissan Global Headquarters and all other main Nissan facilities in Japan have acquired ISO 14001 certification for environmental management systems. We have appointed an environmental management officer to oversee our environmental activities. Through steady application of the PDCA (plan, do, check, act) cycle, we are improving our environmental performance worldwide. 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 local offices in Japan are responsible for activities at each facility and division, and for coordinating the proposals submitted by employees. The ISO secretariat and local offices engage in discussions at least once a month to confirm 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 Nissan can decide on needed improvements. To confirm that management is functioning properly with respect to environmental management, we

periodically retain third-party organizations to conduct audits. Additionally, to strengthen compliance, we conduct internal audits with respect to areas covered by third-party audits as well as all other environmental activities, prioritizing adherence to government reporting requirements and identifying risks. These third-party and internal audit initiatives are aimed at establishing a system capable of detecting human error, however small, and pursuing improved operations.

Nissan's production plants outside Japan have also acquired ISO 14001 certification. Nissan's policy is to establish environmental management systems in all regions where we operate in accordance with the same standards.

### 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 effect 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 the VOC guidance value established by the Ministry of Health, Labor and Welfare for specific substances in January 2002 to be met for all new models manufactured or sold in Japan after April 2007.

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, we 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 we operate, were rolled out globally.

Based on the above-referenced policies, Nissan developed a specific Nissan Engineering Standard (NES) for the *Restricted Use of Substances*, which identifies the chemical substances whose use is either prohibited or controlled. The NES is applied in material selection and also in the components and parts used in our 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 models (excluding OEM vehicles) launched globally since July 2007. To control VOC use in car interiors, Nissan adopted the voluntary targets of the Japan Automobile Manufacturers Association as our own standards for global operations, and we are reviewing and reducing the use of prohibited and controlled chemical substances in materials and adhesives for seats, door trim, floor carpet and other parts.

Every year, we revise the Restricted Use of Substances standards to reflect changes in international

laws and regulations and to add new substances covered by our voluntary internal standards. For the 2017 revision, the members of the Renault-Nissan Alliance implemented shared standards based on a reassessment of select criteria for hazards and risks that go beyond the level of compliance, strengthening Alliance activities.

We build and maintain communication and management systems internally and within the supply chain. For example, we disclose information and submit REACH reports to the relevant authorities about the vehicles and parts produced in or exported to Europe from Japan and other countries (including some from the United States). We also comply with Classification, Labeling and Packaging of Substances and Mixtures regulations.

\*VOCs: Organic chemicals that readily evaporate and become gaseous in the atmosphere.

#### GRI306-3 GRI307-1

# Sanctions and Government Guidance at Nissan Production Facilities

During fiscal 2018, in relation to the environmental management system, none of Nissan's production facilities received notifications or sanctions from the government regarding significant violations of environmental laws or regulations.

### Raising Employee Awareness

Nissan's environmental activities are enabled by the knowledge, awareness and competency of its employees. Based on ISO 14001 standards, we will conduct employee education rooted in the Nissan Green Program 2022 (NGP2022) regarding CO2 emission reductions, energy, water consumption and waste. In addition, education regarding environmental accident prevention and the management of hazardous materials is provided every year to all employees, including those from affiliated companies working in our 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 every year.

In Japan, we implement a curriculum to educate new employees during orientation and organize seminars for middle managers to deepen their understanding of NGP2022 and environmental issues surrounding the auto industry. We also hold "town hall" meetings to promote dialogue between executives and employees. Employees can stay up to date on our 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, we share information and provide 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, we added "environment" to the range of *kaizen* issues addressed by quality control (QC) circles. This has created opportunities for employees to think proactively and propose ideas to improve environmental aspects of our business. Managers encourage the active participation of employees by communicating how these activities of QC circles are linked to the achievement of our 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 we may implement those with the highest potential.

The knowledge and skills of the frontline employees on CO2 emission reduction, energy management, water conservation and waste and landfill reduction have been compiled in a best practices manual and shared among global facilities. We hold contests in some facilities during officially designated months in Japan to keep employees motivated about participating 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).

We also use 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 employee 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 ensures solid environmental management policy by routinely assigning personnel to conduct risk management and having supervisors confirm their suitability and periodically conducting inspections. We also identify potential risks by conducting lifecycle assessments (LCAs). The LCA method is used 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.

During the period of NGP2022, we are applying the LCA method to ensure steadfast implementation of our environmental activities, such as by identifying their progress and examining ways to further reduce our environmental impact. We are also carrying out LCAs for new technologies to develop environmentally friendlier vehicles.

Our LCA methods were certified by the Japan Environmental Management Association for Industry in 2010 and by TÜV Rheinland in Germany in December 2013. The latter certification is based on ISO 14040/14044 standards and validates the environmental impact calculations in our product LCAs. We will use the above-certified calculations during the NGP2022 period to conduct LCAs of new vehicles and technologies and enhance efficiency during both the manufacture and operation of vehicles with the aim of further reducing environmental impact during the lifecycle of Nissan vehicles.

# Global Top Selling Model's Lifecycle Improvements

We have been expanding the application of the LCA method and enhancing the understanding of the environmental impact of our products in quantitative terms, especially our best-selling models worldwide. LCAs have been conducted for over 90% of these models.





With the Altima and Rogue, for example, improvements in internal combustion engine efficiency and vehicle weight reduction have led to both enhanced safety features and lower CO<sub>2</sub> emissions.





Production & logistics
Fuel & electricity production
Usage
Maintenance
ELV

\*1 Production in U.S., 120,000 mile driven in U.S. (basis for comparison).

\*2 Production in EU, 150,000 km driven in EU (basis for comparison).

# LCA Comparison for e-POWER Models

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 have achieved an 18%—27% reduction in CO2 emissions. Electrified e-POWER vehicles use a system in which a gasoline engine operates only under certain circumstances and is used to generate electricity.

As a result, e-POWER vehicles achieve lower exhaust emissions and better fuel efficiency for driving than conventional gasoline engines. Also, since an e-POWER vehicle only requires a small battery (unlike one that is 100% electric), 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 future potential for further reductions in CO<sub>2</sub> emissions through additional weight reductions and the optimization of e-POWER energy management.



Lifecycle CO<sub>2</sub> Equivalent Emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.)

Production & logistics
 Fuel & electricity production
 Usage
 Maintenance
 ELV
 Production in Japan, 100,000 km driven in Japan (basis for comparison).

# LCA Comparison for the New Nissan LEAF

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

We are making efforts to reduce CO<sub>2</sub> emissions during EV production by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials. We are also continuing to pursue technology development for electric powertrains, power savings on ancillary devices and the use of renewable energy to reduce CO<sub>2</sub> emissions over the entire lifecycle of EVs.

Also, at the end-of-life stage, used batteries can be utilized for energy storage in various ways, contributing to reduced CO<sub>2</sub> emissions in society.



Lifecycle CO2 Equivalent Emissions (CO2, CH4, N20, etc.)

# Lifecycle Improvements Beyond Climate Change

Nissan is expanding the scope of LCAs to include not just greenhouse gases but also a variety of chemicals amid growing societal concerns over air quality and ocean acidification and eutrophication. Our calculations show that, compared to conventional gasoline engines, the Serena e-POWER is significantly more environmentally friendly, achieving 11%—27% emission reductions for all targeted chemical substances and achieving environmental benefits throughout its lifecycle. Emissions Improvement in the New Serena e-POWER over Its Lifecycle



Conventionale-POWER

Production in Japan, 100,000 km driven in Japan.

# Stakeholder Engagement

GRI308-1 GRI308-2

### Working with Suppliers

As part of NGP2022, we are working to improve suppliers' environmental performance via the following three initiatives:

- We encourage all our global suppliers to manage parts and materials with a shared environmental philosophy in alignment with the Nissan Green Purchasing Guidelines. These guidelines are based on *The Renault-Nissan Purchasing Way* and the *Renault-Nissan Supplier CSR Guidelines* and provide detailed information regarding environmental matters. In August 2018, based on NGP2022, we revised the content of the guidelines, adding requests that suppliers undertake their own environmental activities. Additionally, in May 2019, in order to strengthen management of environment-impacting substances, we added requirements dealing with supplier self-diagnosis of environment-impacting substance management and related topics, and asked all suppliers to follow them.
- We also participate in the supply-chain program of CDP (previously known as the Carbon Disclosure Project), an international nonprofit, through which we request information on climate change and water from suppliers and conduct comprehensive performance reviews. During fiscal 2018, we asked our large contract suppliers to take part in the supply-chain program to provide responses on their environmental activities. 78% of them participated in the CDP program on climate change data and 74% in the CDP program on water security. Based on the results from these surveys, we engaged with a number of suppliers in order to incentivize work on the improvement of their environmental initiatives, and these led to improvements in the ranking of our suppliers in 2018.
- We are promoting THANKS (Trusty and Harmonious Alliance Network Kaizen activity with Suppliers) activities, a joint improvement program that emphasizes trust and cooperation with suppliers. Regarding energy use (electricity and gas) and CO<sub>2</sub> emission reduction in particular, we are taking the lead in cooperating with our main suppliers as part of the energy-efficient THANKS activities, based on the initiatives of our internal production facilities.

China's environmental regulations have become more stringent in recent years, forcing many companies to discontinue their business, temporarily suspend operations or to relocate their factories. Under the circumstances, we conducted an independent survey in fiscal 2018 of suppliers' compliance with environmental regulations. The results will be utilized to build a more resilient supply chain.

### Working with Consolidated Production Companies

We encourage our 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

Our dealerships in Japan have introduced an original approach to environmental management based on ISO 14001 certification called the "Nissan Green Shop" certification system. This program is managed through internal audits conducted by the dealerships every six months, in addition to annual reviews and certification renewal audits carried out every three years by Nissan Motor Co., Ltd. (NML). As of the end of March 2019, the system has certified approximately 2,700 dealerships of 156 dealers, including parts dealers.

# Working with Future Generations

Today's youths are the future leaders of our society. We are working to share information on environmental issues with the younger generation, and to raise awareness among tomorrow's leaders.

We have been conducting environmental programs for students in school visits in Japan since 2008 in which more than 50,000 students had participated as of March 2018. In NGP2022, we will further expand the program in Japan and in other countries.

### Key Activities in NGP2022

Youth education programs, such as Nissan Waku-Waku Eco School, an interactive program delivered by Nissan employees to schoolchildren, will be expanded globally to:

- Share knowledge of global environmental issues
- Introduce our environmental initiatives, such as the Nissan LEAF electric vehicle and our other green technologies



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

# Working with NGOs

The *Global Risks Report 2019* published by the World Economic Forum cited climate change and water crises among the top-ranked global risks for the tenth consecutive year, and all companies must contribute in these areas. We believe that working alone via our operations is not sufficient, so we collaborate with NGOs to undertake climate-change and water-related community projects that are aligned with our environmental targets.

Our Corporate Philanthropy Goal is to create a cleaner, safer and more inclusive society. NGP2022 seeks to support local communities through various projects by collaborating globally with NGOs primarily in such areas as climate change and water scarcity.

Key Activities in NGP2022

Collaboration with the World Wide Fund for Nature Japan (WWF Japan) on climate change mitigation

- Support and financially contribute to 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 to 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 had degraded over the past 50 years more rapidly and extensively than in any comparable period in history. Humankind depends on a number of ecosystem services, including the 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,<sup>\*1</sup> we have evaluated the value chain from the extraction of material resources to vehicle production and operation. Based on the results, we have identified three priority areas as an automobile manufacturer: energy sourcing, mineral material sourcing and water usage. We published a report titled "Ecosystem Services and the Automotive Sector"<sup>\*2</sup> in 2010 collating the outcome of this work. Our calculations in June 2013 showed that more than 20 times as much water was used upstream in the supply chain than by Nissan itself.

We are following up by re-evaluating and further developing our existing environmental initiatives from the viewpoint of business risks and opportunities.

- \*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 here for more information on "Ecosystem Services and the Automotive Sector."
- Click here for more information (environmental data) on how we are strengthening our business foundation to address environmental issues.

# SOCIAL

SOCIAL POLICIES AND PHILOSOPHY				
HUMAN RIGHTS	>			
DIVERSITY AND INCLUSION	>			
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
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### COMMUNITY ENGAGEMENT

#### GRI102-15 GRI103-1

GRI103-2

# 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 we conduct our 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 aspect (important sustainability topics) of Nissan Sustainability 2022, we are promoting initiatives in six areas: traffic safety, diversity and inclusion, quality, supply chain, employees and community engagement.

#### **Traffic Safety**

We are promoting development and implementation of driver assistance technology and other traffic safety technologies to achieve our ultimate goal of virtually zero fatalities involving our vehicles.

#### **Diversity and Inclusion**

We will proactively hire more diverse talent with different backgrounds to make gender and national diversity a corporate strength. We also aim to be a truly inclusive company so that employees can demonstrate their potential to the fullest.

#### Quality

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

#### Supply Chain

We are strengthening our sustainability initiatives throughout its supply chain.

#### Employees

We will expand opportunities for our employees to learn so that they can achieve their maximum potential. We aim to make continuous learning and talent development part of our 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. We are 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 interest from stakeholders.

#### Report Themes and the Six Areas

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

# HUMAN RIGHTS

Human Rights Policies and Philosophy  $\checkmark$ 

Human Rights Management 💙

Human Rights Achievements V

GRI103-1

# Human Rights Policies and Philosophy

As the value chains of global corporations expand, the international community is ever more concerned about respect for human rights and how business affects them. As a leading automobile company, Nissan considers the strict adherence to corporate rules and applicable laws and practices fundamental to its business activity in every country and area where it operates. We are committed to delivering engaging, valuable and sustainable mobility to all and acknowledges that, for this to be achieved, the human rights of all stakeholders must be respected and all employees must uphold the highest ethical standards. We do not discriminate on the basis of race, nationality, gender, religion, disability, age, place of origin, gender identity, sexual orientation or any other characteristic. We also work to rectify and eradicate working practices that infringe human rights, such as forced labor and child labor.

GRI102-16

#### 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. Based on the U.N. Guiding Principles on Business and Human Rights (UNGPs), we have formulated the Nissan Human Rights Policy Statement\* to actively prevent adverse human rights impacts. This policy statement makes our commitment to protecting human rights clear to all stakeholders and underpins our initiatives in this area.

\*Click here to download the Nissan Human Rights Policy Statement.

GRI102-17 GRI103-2 GRI408-1 GRI409-1

GRI412-1

# Human Rights Management

The Nissan Human Rights Policy Statement is applicable to employees at every level, including management. Nissan's fundamental ethical expectations are also clarified in the Nissan Global Code of Conduct, and all management and employees recognize the importance of applying the statement beyond Nissan's own operations. At every level of our global supply chain, we aim to conduct ethical, social and environmentally conscious business activities, and we work together with suppliers, contractors and other business partners to achieve this goal.

Since 2006, we have shared a set of common values and processes around procurement known as *The Renault-Nissan Purchasing Way* with its worldwide network of suppliers. Common values regarding human rights and labor are also shared via the *Renault-Nissan CSR Guidelines for Suppliers*, in which we detail our expectations and request implementation regarding respect for human rights and prohibition of child labor and forced labor. In addition, we require businesses we deal with to take the initiative on responsible procurement of minerals and carry out due diligence on conflict minerals. We are also strengthening communication with our sales companies and promoting consistent sustainability management, including on human rights issues.

\*Click here for more information on supply chain-related human rights initiatives.

See below for more details about our guidelines.

- > Nissan Global Code of Conduct
- > Renault-Nissan Corporate Social Responsibility Guidelines for Suppliers
- > Action Against Conflict Minerals

GRI103-3 GRI406-1 GRI407-1

GRI411-1 GRI412-2

# Human Rights Achievements

Nissan recognizes the need to take a comprehensive approach to managing human rights. After identifying actual or potential adverse impacts that we might have inadvertently caused or contributed to, we consider it vital to monitor and assess such situations, as well as to develop appropriate response strategies.

In the 2001 Nissan Global Code of Conduct, we detailed our policies regarding equal opportunity and respect for diversity. In 2004, we signed the United Nations Global Compact, accepting reporting obligations that we continue to fulfill today. Regarding suppliers, in 2010 we published the *Renault-Nissan CSR Guidelines for Suppliers*, clarifying our respect for human rights and commitment to eliminating forced and child labor and sharing our sustainability policies.

In 2017, in accordance with the U.N. Guiding Principles on Business and Human Rights (UNGPs), we issued the Nissan Human Rights Policy Statement. This policy makes it clear that, as a world-leading automobile company, we respect all our stakeholders' human rights, and require our employees to act according to the highest ethical standards. In 2018, we cooperated with an NGO to implement human rights due diligence, allowing us to identify key areas of particularly high risk.

In June 2018, we launched our new sustainability strategy, Nissan Sustainability 2022, specifying the main goals through fiscal 2022 for the aspects of Environmental, Social and Governance. For the Social aspect, the strategy also reiterates the importance of respecting all stakeholders' rights.

We also work to build awareness of human rights among employees. For example, a total of 222 people have taken part in our LGBT seminars, held annually since fiscal 2014. Since fiscal 2016, all senior managers have been required to take an e-learning program about LGBT issues. We also have proactive initiatives to support LGBT staff.\*<sup>1</sup>

As described in the Nissan Global Code of Conduct, employees can submit inquiries related to human rights issues via a global reporting system.\*<sup>2</sup> We are committed to investigating, addressing and responding to any concerns raised, and employees who make inquiries are protected from any form of retaliation.

\*1 Click here for more information on initiatives to support LGBT staff.

\*2 Click here for more information on our global reporting system.

# DIVERSITY AND INCLUSION

Diversity and Inclusion Policies and Philosophy V

Diversity and Inclusion Management V

Diversity and Inclusion Achievements V



# 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. We place 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

We have established the Nissan Global Code of Conduct, 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, we respect the diversity of our employees, work to maximize the performance of each individual and actively strive 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 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. We believe 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 workstyles to suit their particular stage of life. Skill development programs are another essential part of making the workplace attractive to employees.

We believe 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, we have made diversity and inclusion part of our corporate strategy and is promoting them in all workplaces.



#### GRI103-1 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. We then put in place local initiatives based on the specialist knowledge needed for their implementation. We aim to be a truly inclusive company with a diverse workforce, in which individual employees can demonstrate their potential to the fullest. We promote 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 workstyles."

✓ Sustainable Growth✓ Creating Innovation



# Diversity and Inclusion: Decision-Making and Action-Driving Bodies

We have 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, we have 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.



## Diversity and Inclusion Promotion: Issues and Approaches

Issues	Approaches
Developing leaders with skills to manage diverse organizations	Management skills development
Enabling diverse human resources	<ul> <li>Human resources development, career support</li> <li>Enhanced recruitment actions*</li> <li>Targets: 16% female managers globally, and 13% in Japan by 2023</li> </ul>
Embedding culture of respect for diversity and inclusion	<ul> <li>Promotional activities for all employees to understand values of diversity and inclusion</li> </ul>
Promoting inclusive workstyles	<ul> <li>Work-life balance support</li> <li>Development of infrastructures that realize flexible workstyles</li> </ul>

\*Guidelines at Nissan Japan for female new staff recruitment are 50% for office positions, 20% for engineering positions and 20% for technical roles.

#### GRI103-3 GRI405-1

# **Diversity and Inclusion Achievements**

### Enabling Diverse Human Resources

### Female Talent Development: Initiatives and Achievements

Enablement of women, particularly in management positions, is essential to providing diverse value 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 we operate.

As a result of these initiatives, the percentage of women among Nissan managers globally has increased from 7% in 2008 to 13.6% in April 2019. Additionally, increasing numbers of female employees have ambitions to work overseas, and women are active at every one of Nissan's global sites.

In Japan, we provide 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. We have also put in place a mentoring program as part of our 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 10.4% of managers in Japan (as of April 2019). This compares favorably to the average of 4.0% for Japanese manufacturers with 1,000 or more employees (according to the 2018 Basic Survey on Wage Structure 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 2019, a total of 7.6% of general manager or higher positions are filled by women—3.8 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.

Ratio of Women in Management Positions



Rather than simply increasing the number of female managers, we create 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. We are also promoting human resource and career development initiatives for women at our 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, and other female plant managers have been appointed since then.

Nissan sales staff must respond to the needs and questions of men and women customers alike. There are many staff employed at our sales companies, but particularly noteworthy is the participation and advancement of our female car-life advisors (CAs). As of February 2019, 1,196 female CAs were active across Japan, accounting for 10.7% of the national total, a 0.6% increase compared to 10.1% in February 2018. Additionally, to enhance the satisfaction of female customers with after-sales service

experiences, female technical advisors (TAs) have been appointed to bridge the gap between customers and dealer technicians.

### 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. 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.

### Establishing a Culture of Respect for Diversity and Inclusion

In order to leverage diversity as a true strength, create greater value, and meet the diverse needs of customers, we believe it is important to establish a culture of diversity and inclusion, where employees with all sorts of differences, not just of gender and nationality but also sexual orientation, gender identity, disability, age and career history, acknowledge and accept each other without discrimination or prejudice.

To further foster a culture of diversity and inclusion, in fiscal 2018 in Japan, we introduced an "Unconscious Bias e-learning" for all indirect employees, in which employees can learn the influence of the unconscious biases that everyone has as well as techniques to mitigate their effects. We plan to gradually expand this initiative across our global sites.

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, we have been working to support and promote understanding through such initiatives as annual LGBT seminars held since 2014. We have participated in Tokyo Rainbow Pride, the largest LGBT event in Japan, for three consecutive years since 2017. In fiscal 2016, a self-initiated employee network was launched by members of the LGBT community and allies (those supportive of LGBT) within the company. 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. In 2018, we won Gold for the second year in a row.

We also provide a space where older employees and those with disabilities can fully participate. Necessary training programs are 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 addition, we hold local diversity-themed events and run diversity training programs for employees all over the world. Employees can also learn about Nissan's vision and initiatives relating to diversity and inclusion via diversity articles on the company intranet and e-learning programs.

### Promoting Inclusive Workstyles

We strive to create a work environment where every member of a diverse workforce can demonstrate his or her 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.

Also, in order to make it easier for staff in different regions to work together, in 2017 we 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, we can provide an attractive work environment in all regions.

### Initiatives for Employees Balancing Work with Childcare or Nursing Care

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. We are building an environment to help employees who balance work with childcare through both facilities, such as inhouse childcare centers, and initiatives, such as seminars and organizational support. In fiscal 2017 Nissan's first plant childcare center—March Land Oppama—was opened at the Oppama Plant. The childcare'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 we have 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 we launched an external support service to support employees who face difficulties in nursing care.

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

#### Comprehensive Support for Employees



Supporting employees: Career development and work-life balance support

- "Seminar for expecting parents"
- "Seminar for Back-to-Work After Parental Leave"

Gives employees opportunities to think about their career paths before maternity leave and back-to-work after parental leave

Nursing care seminars

Supporting managers who have employees engaged in childcare and nursing care

- Guidance on offering promotion exams before parental leave
- Seminar for managers with employees engaged in childcare
- Diversity management training for managers



#### Company infrastructure

Working from home

Employees engaged in childcare and nursing care can spend up to 50% of the required minimum monthly work hours, while others are allowed up to 40 hours per month. All employees except those in manufacturing processes are eligible.

- Super-flextime without core time
- Shorter working hours (for employees engaged in childcare or nursing care)
- Family support program (special paid holidays for marriage, childbirth by spouse, childcare, nursing care and fertility treatment)
- Childcare leave, nursing care leave, maternity protection leave
- Accompanying leave (three years maximum)
- Re-employment policy

- In-house childcare center (four sites)
  - 1. Supports employees by helping them balance work and childcare and perform at their best
  - 2. Supports employees' return to work when they wish, rather than when care waiting lists in Japan allow it
- Lending of personal computers to employees on leave (for intranet and email access)
- MM care room (lactation room)
- External nursing care hotline

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

				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.m.–10:00 p.m.	8:30 a.m.–6:30 p.m.	8:00 a.m.–8:00 p.m.	5:00 a.m.–7:30 p.m.
Established	April 2005	October 2012	January 2013	April 2017

\*Capacity determined based on facility area.

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

	Pregnancy	Childbirth	1 year old	2	3	6	9	12
Leave	6 w before c Maternity protection lea	Maternity leav		years old aft	d of first April er child turns 2			
Days off	Fa	mily support le om pregnancy	ave (to promote ( to child's 6th yea	childcare): Ir of elementary s	chool; 12 days/yea	ar (5 paid, 7 unpa	aid)	
Reduced working hours			nours (for childca ith children throu		of elementary schoo	ol; 3 hours/day		
Other			Allo	owance for baby	n company sites		)	
Legally mandate	d De	cided by Nis	:	For parents of		:	:	

### Workstyle Reform "Happy 8"

We are 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.

We have been striving to make workstyles more flexible. In the 1990s we 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 we 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 we also began promoting our Happy Friday program, encouraging employees to leave the office at 3 p.m. on the last Friday of each month.

Additionally, to give each employee the opportunity to reflect on their own workstyle from a new perspective, each fiscal year since 2014 we have held a Workstyle Symposium featuring invited guest speakers from outside the company.

Under the slogan "Eight productive hours! Richer lives, better health, Happy 8," we will



A symposium for Nissan employees on the theme of diverse workstyles.

continue striving for more flexible and attractive workstyles.

#### 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 all employees, 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 well-being 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 high-functioning groups. These BSTs focus on supporting the members' 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 formed BSTs at every major U.S. location. These BST groups are:

- Gay Straight Alliance at Nissan (GSAN)
- Generations Business Synergy Team
- Green Team
- Interfaith Nissan (IN)
- 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 (NNA) 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 Americas' 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.

### Enhancing Workplace Diversity and Inclusion in Europe

In Europe, as part of our efforts to promote gender diversity, we hold career fairs and provide 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 our 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. We 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, we 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 we received the highest third-level Eruboshi accreditation as a company that successfully promotes female participation in the workplace. Additionally, we were the first Japanese carmaker to receive a PRIDE Index top Gold award, a scheme which recognizes efforts to support LGBT employees; in 2018, we received the same award for the second year in a row.

These awards are a clear sign that Nissan's commitment to diversity and inclusion is producing results and that our efforts to make diversity a key element of its competitive strategy are steadily bearing fruit.

\*Click here for data on the main examples of external recognition of our diversity and inclusion initiatives to date.









女性が輝く 先進企業表彰

# TRAFFIC SAFETY

Traffic Safety Policies and Philosophy V

Traffic Safety Management 💙

Traffic Safety Achievements (Vehicles, People, Society) V

#### GRI103-1 GRI103-2

# Traffic Safety Policies and Philosophy

The automobile has transformed people's lives, bringing mobility, convenience and the pleasure of driving. In recent years, the automotive industry has made significant advances, particularly in autonomous driving technologies and driver-support solutions. The world is also undergoing major structural shifts due to aging populations and the rapid progression of urbanization. Technological innovation in the automotive sector is expected to help realize societies 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 safety. More than 90% of traffic accidents are caused by human error. Our goal is "zero fatalities": reducing the number of deaths from accidents involving Nissan vehicles to virtually zero.\* To this end, we continue working to improve the safety of our vehicles, partly through the development and adoption of autonomous driving technologies. We also conduct a wide range of other activities to build a safer and more pleasant mobility society, including educational initiatives to raise safety awareness among drivers, pedestrians and others in the community.

\*Click here for more information on our goal of zero fatalities.

# Traffic Safety Management

Nissan's goal of "zero fatalities" means aiming for virtually no fatalities due to traffic accidents involving Nissan vehicles. Since 2004, our R&D department has been striving to develop technologies based on our unique Safety Shield concept of vehicles that protect people. Many different types of Nissan vehicles are already equipped with the results of this work, including technologies to help prevent collision or reduce the damage when a collision is unavoidable. Today, we are working toward the implementation of autonomous driving as the next advancement among our preventative safety and driver-assist technologies.

To help people gain a better understanding of traffic safety, we are committed to educational activities to boost safety awareness and support activities to improve drivers' skills.

We are working alongside government and municipal authorities, universities and other companies to realize a safer and more pleasant mobility society.

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

Nissan's approach to safety is focused on the real world and aims to help create a society with virtually zero avoidable traffic accidents. In 2018, there were 3,532 fatalities in Japan caused by traffic accidents. While this is 162 less than the previous year, it is still more than 3,000 deaths due to traffic accidents. According to the World Health Organization (WHO), approximately 1.35 million people die each year in traffic accidents globally. Unless urgent steps are taken, traffic accidents could become the seventh leading cause of death worldwide by 2030.

We set the target of reducing the number of fatalities involving Nissan vehicles to half their 1995 level by 2015, and reached this target in Japan, the United States and the United Kingdom. Today, we are striving to halve this number once again in these markets by 2020. Our 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, encompassing individuals and the driving environment as well. We take a triple-layered approach, targeting vehicles, individuals and society to contribute to the creation of a truly safe automobile society.

# Nissan's ultimate goal:

Virtually zero fatalities involving Nissan vehicles.

# Nissan's approach:

A triple-layered approach, targeting vehicles, individuals and society.





Source : Institute for Traffic Accident Research and Data Analysis



Source : Fatality Analysis Reporting System



Source : STATS19 data, U.K. Department for Transport

# Traffic Safety Achievements

#### GRI103-3 GRI416-1 GRI417-1

# Vehicles: Developing Safety Technologies

To promote safe and enjoyable driving, as well as ensuring that all our brands comply with laws and regulations addressing automobile safety, Nissan is working to develop automotive technologies that help minimize risk to vehicle occupants to the extent possible based on its unique Safety Shield concept. We also provide technologies that can help reduce injuries when a collision is unavoidable.

# The Safety Shield Concept

Our Safety Shield concept divides the conditions surrounding a vehicle into six phases, from "risk has not yet appeared" through "post-crash," and guides the development of technologies to help address each phase. This concept is the basis of our efforts to create safer automobiles.

# Key Achievements for Nissan Safety Technology

In January 2015, we 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 standard on all major models. In North America, it is now standard on several models including the Pathfinder, Altima and Rogue. In Europe, it is available on the Juke, X-Trail, Qashqai, Micra and other key models. The technology has been adopted for several new models launched in fiscal 2018, including the new Altima in North America, the Nissan LEAF e+, and the new Nissan Dayz in Japan.

Our vehicles have earned high safety ratings on many public and governmental tests held in various regions. In Japan, our 11 major models featuring the Intelligent Emergency Braking, including the Note and Serena, were approved under the Advanced Emergency Braking System certification launched by the Ministry of Land, Infrastructure, Transport and Tourism in fiscal 2018.

#### Major External Safety Ratings (Based on 2018 Assessments)

Regions	Exter	nal Assessments	Models	Rating
Japan	JNCAP*1	Collision Safety Performance Assessment	(No assessments performed in fiscal 2018)	
		Preventive Safety Performance Assessment	Dayz Roox, Note	ASV+++
		Automatic Accident EmergencyCall System Assessment	Nissan Dayz	SOS+ (on-board type)
U.S.	NCAP*2		INFINITI QX60, QX50, Pathfinder, Murano	5★ Overall Rating (2019 model year)
			INFINITI QX80, Titan (Crew Cab), Armada, Frontier (Crew Cab), Rogue,*4 Rogue Sport, Sentra,*5 Versa (Sedan), Kicks	4★ Overall Rating (2019 model year)
	IIHS* <sup>3</sup>		Altima, Pathfinder,*6 Kicks (vehicles equipped with LED headlights)	2019 Top Safety Pick
Europe	Euro NCAP		Nissan LEAF	5★
China	C-NCAP		Terra	5★
Southeast Asia	ASEAN NCAP		Terra	5★

\*1 JNCAP: The Japan New Car Assessment Program. An automobile assessment program run by the Ministry of Land, Infrastructure, Transport and Tourism and the National Agency for Automotive Safety and Victims' Aid (NASVA).

- \*2 NCAP: The U.S. National Highway Traffic Safety Administration's New Car Assessment Program.
- \*3 IIHS: The U.S. Insurance Institute for Highway Safety.
- \*4 Except Rogue Hybrid.
- \*5 Except NISMO and SR Turbo.
- \*6 Vehicles manufactured after August 2018.

# Aiming for Virtually Collision-Free Cars

Our Safety Shield concept supports the safety of vehicle occupants in a variety of scenarios with the overall goal of preventing collisions where possible and, in case of unavoidable collisions, mitigating damage and injuries.

For example, during normal driving or parking, sensors and cameras can monitor vehicles and pedestrians that may be difficult for drivers to see; this supports drivers and allows them to drive with peace of mind. In times of potential danger, the vehicle can judge in an instant how to help avoid or lessen the danger.

We have set ourselves the goal of providing optimal mobility worldwide. We are committed as an automobile manufacturer to swift and widespread popularization of our safety technologies.

<ul> <li>Risk has not yet appeared</li> <li>ProPILOT</li> <li>Intelligent Distance Control</li> <li>Navigation-enabled Intelligent Cruise Control with full-speed range following capability</li> <li>Adaptive Front-Lighting System (AFS)</li> <li>Intelligent Around View Monitor</li> <li>Intelligent Rear View Mirror</li> </ul>	Helps the driver drive with peace of mind	
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	Helps the driver avoid dangerous situations	
Crash may occur Intelligent Emergency Braking Anti-lock Braking System (ABS) Vehicle Dynamics Control (VDC) Emergency Brake for Pedal Misapplication		
Crash is unavoidable Front Pre-Crash Seatbelts Crash		
<ul> <li>Zone Body Construction</li> <li>SRS Airbag Systems</li> <li>Pop Up Engine Hood</li> </ul>	Helps minimize injuries when a collision is unavoidable	
Post-crash ■ Automated Airbag-Linked Hazard Lamps ■ SOS call (HELPNET)		

# Latest Safety Technologies\*

\*All terminology and functionality as seen in Japan market.

# Intelligent Emergency Braking

When the front-mounted camera detects a vehicle or pedestrian ahead and the risk of collision increases, visual warnings appear in the meter display and an audible signal warns the driver to take appropriate action. If the driver does not reduce speed appropriately, braking is applied to help avoid or reduce the severity of a frontal collision.

### Emergency Assist for Pedal Misapplication

This technology uses sonar to detect walls and other obstacles in the direction of travel. When the accelerator pedal is depressed too strongly or the system determines that there is a risk of collision, audio and visual warnings alert the driver as the system reduces engine or motor output and brakes to prevent or reduce the severity of a collision. According to our accident



analysis, pedal misapplication is not restricted to parking lots and similar spaces but also often occurs on the road. Our latest system supports the driver in a wide range of situations in that it can detect vehicles and pedestrians with a front-mounted camera installed in the upper portion of the windshield when traveling at speeds of up to 25 km/h.

# Lane Departure Warning/Intelligent Lane Intervention

The Lane Departure Warning system alerts the driver when the car appears to drift out of its travel lane with a visual warning in the meter display and an audible signal. The Intelligent Lane Intervention system can also automatically help the driver return to the travel lane by redirecting the vehicle toward it.

### Intelligent Driver Alertness

When the Intelligent Driver Alertness system detects via the driver's steering activity that driver alertness may be reduced, a visual warning 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 the view through a rear-mounted camera, helping provide clear rearward visibility. The mirror's rearward view is not impeded by any cargo or vehicle occupants inside the vehicle. Additionally, the sensitivity of the camera can be increased at night or in other low-light conditions, providing the driver with a clear rearward view in a variety of circumstances.

#### Intelligent Around View Monitor

Images showing the vehicle from a virtual bird's eye view clearly convey the relationship between car and parking space, 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 exiting a parking space.

#### Rear Cross Traffic Alert

The Rear Cross Traffic Alert warns drivers backing out of a space when a risk is detected of vehicles approaching behind them 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. When the driver has the indicator on, visual and audible warnings are provided.



# From Preventive Safety to Autonomous Driving

We are enhancing our preventive safety technologies to support the four basic steps in avoiding accidents: sensing, cognition, judgment and action. Today we are developing autonomous driving technologies as the next step in our approach to driving safety. We believe that autonomous driving could help reduce traffic accidents—more than 90% of which have human error as a contributing factor—and help realize a society with virtually no traffic accidents.



A Nissan autonomous driving test vehicle.

Autonomous driving vehicles equipped with millimeter-wave radar, laser scanners and cameras continually monitor their surroundings in every direction. If they approach other vehicles or 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, providing peace of mind to drivers and increased mobility to the rapidly growing number of senior citizens. We believe that autonomous driving technologies are a major breakthrough offering new mobility value. We are proactively developing these technologies and working to bring them to market.

In August 2016, the new Serena was equipped with ProPILOT, a driving support system that can provide speed control, lane centering and brake assist functionalities.

We are progressively deploying ProPILOT globally in a wider range of vehicle types. So far, in Japan, it is available in the Serena, X-Trail and Nissan LEAF. It is also available in the new Nissan Dayz, the first "kei" vehicle to offer this feature. In the United States, ProPILOT Assist is available in the INFINITI QX50, Rogue, all-new Altima and Nissan LEAF. In Europe, it is available in the Nissan LEAF and Qashqai. In total, more than 350,000 vehicles equipped with ProPILOT or ProPILOT Assist have been sold as of the end of March 2019. We have announced our intention to deploy ProPILOT or ProPILOT Assist in 20 models for sale in 20 markets by 2022, when the number of ProPILOT or ProPILOT Assistequipped vehicles sold annually is expected to reach 1 million.

# Nissan's Traffic Safety Activities: Involving People

To create a better mobility society, it is important for as many people as possible to share an understanding of traffic safety, from drivers and vehicle occupants to pedestrians. We take part in educational activities to boost this safety awareness, including measures to improve driving 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's Omoiyari Light Promotion urges drivers to turn on their headlights earlier in the evening. We have been involved in this campaign since 2010 and promote civic activities with two-way communication to raise public awareness of traffic safety.



In fiscal 2018, we developed these activities further with a two-pronged approach: using the Nissan Global Headquarters Gallery and advancing the Twilight-Time Omoiyari Town Project (Omoiyari Light Promotion). We also designated the 10th of each month as "Day of Lighting" (based on a Japanese play on words) and started a campaign to promote it.

1. Using the Global Headquarters Gallery: Nissan's Omoiyari Light Promotion started as a civic activity in Yokohama, where our Global Headquarters is located. Holding events at the Global Headquarters Gallery has offered more opportunities to inform gallery visitors about the campaign. During the Autumn National Traffic Safety Campaign period of fiscal 2018, we held a family workshop to learn about traffic safety by creating keyholders using reflective material. We also held an event with students from Nagasaki University, Niigata University and Tohoku University of Art and Design, who connected with each other through the Twilight-Time Omoiyari Town Project. Each group of students took the stage to make a presentation on their on-street activities in support of the Omoiyari Light Promotion. In addition, throughout the year, the gallery hosted daily presentations by Nissan's "Miss Fairlady" PR staff members about the Omoiyari Light Promotion. We also showed a concept movie produced by the musician SIESTA, a supporter of the campaign. Through these activities, we have promoted the Omoiyari Light activities to the public.



#### 2. Twilight-Time Omoiyari Town Project:

To further advance the goals of our Omoiyari Light Promotion, we support related initiatives run inside and outside Yokohama by other entities. On November 10, designated "Day of Good Lighting" in fiscal 2018, we held various interesting and fun activities around Japan to remind drivers of the importance of turning on their headlights early in the evening. A total of about 250 people participated in an onstreet campaign to turn on their headlights before dark at seven locations across Japan: Yamagata in Yamagata Prefecture, Niigata in Niigata Prefecture, Nyuzenmachi in Toyama Prefecture, Sabae in Fukui Prefecture, Muroto in Kochi Prefecture, Nagasaki in Nagasaki Prefecture and Yokohama in Kanagawa Prefecture. The campaign was joined by local mascots and police cars, and was promoted at film festivals. At several cities in one prefecture, participants



called on drivers to turn on their headlights early for six consecutive days. We expect the Twilight-Time Omoiyari Town Project to continue expanding.

#### 3. Day of Lighting:

We have designated the 10th of the month "Day of Lighting" to remind drivers to turn on their headlights before dark. Various on-street activities are held across Japan to promote the lighting campaign as well as on websites and social media to promote communication.

By urging greater awareness of, and action on, safety among corporations, nonprofit organizations, car-lovers and other stakeholders, these activities have helped our Omoiyari Light Promotion steadily gain broad acceptance among the public.

#### Nissan Safety Driving Forum in International Markets

As part of our efforts to promote safe driving and enhance traffic safety awareness among the general driving population, we conduct our Nissan Safety Driving Forum in international markets.

The forum has traveled to multiple cities in countries like China, India and Russia, teaching participants the importance of traffic safety through simulations and safety technology exhibitions.



A participant using a driving simulator.

# Partnership with the FIA for Traffic Safety

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

As part of this partnership, we work worldwide to promote the FIA Golden Rules for Safer Motoring, which aim to reduce the number of deaths from traffic accidents. By signing the FIA Online Pledge, campaign supporters publicly commit to driving safely.

We leverage events like the Nissan Safety Driving Forum and other outreach efforts to educate drivers about the FIA Golden Rules and FIA Online Pledge. At the NISMO Festival—a fan



At the NISMO Festival.



appreciation event hosted by Nissan Motorsports International—we place campaign logo decals on the many vehicles that are displayed or driven in the festival. We also stress the importance of traffic safety to festival visitors through other on-site events, including panels where drivers discuss safety topics. Since 2016, we have placed a dedicated booth at the festival to actively promote and collect signatures for the FIA Online Pledge. At the 2018 festival, nearly 300 participants pledged compliance with the FIA Golden Rules.

\*Click here for more information on our partnership with the FIA.

# Society: Working Together with Society

We believe we can help create an even safer mobility society by using information from the traffic environment surrounding vehicles on the road. In collaboration with a wide range of governmental agencies, universities and companies, we are participating in various projects aimed at realizing a safer, more pleasant mobility society.

### Helping Reduce Wrong-Direction Accidents

Recently, Japan has seen an increased number of incidents involving vehicles traveling in the wrong direction on expressways. Working together with West Nippon Expressway Co., we have developed a navigation program that uses GPS to notify expressway drivers of vehicles driving the wrong way. The system detects these vehicles based on GPS coordinates, maps, vehicle speeds and other data, and their drivers receive audible and visual warnings. It first appeared in the Nissan Fuga Hybrid released in October 2010 and is now available as an option on every type of vehicle we sell in Japan, including commercial vehicles. Now that the technology has been licensed to Pioneer Corp., this function is available to customers who use Pioneer car navigation systems as well.

### Our Initiatives for the Future

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

To realize fully autonomous city driving, we are developing the Seamless Autonomous Mobility system, or SAM. SAM will be able help cars safely navigate unforeseen situations like accidents, road construction and other obstacles. When autonomous decision-making is difficult, a remote operator draws up an ideal route to manage the situation and sends it to the vehicle 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 using driverless vehicles. In March 2018, field tests of the Easy Ride service were conducted in the Minatomirai district of Yokohama in Kanagawa Prefecture. The field tests used monitors in test cars equipped with autonomous driving technology to assess and check the service. In February 2019, we conducted tests under more realistic circumstances by expanding the test field and randomly choosing starting points and destinations. Nissan and DeNA will work together to develop service designs for driverless environments, expand service routes, optimize distribution logic for when the vehicles share congested roads with driveroperated vehicles, establish pick-up/drop-off processes, and explore the possibility of multilingual support. We aim to launch the full service in the early 2020s.

# PRODUCT SAFETY AND QUALITY

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# Product Safety and Quality Policies and Philosophy

Product evaluations and automaker brand value are entirely dependent on customer perception of quality. In the automotive industry, rapid technical innovations are seeing customers demand everhigher levels of quality in the products they purchase. A company can strengthen its brand by consistently 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.

As mobility needs rise worldwide, driven by increased urbanization and structural changes in the global economy, Nissan is expanding production to fulfill its mission of offering people everywhere the rich benefits of mobility. At the same time, we believe that automakers have an important responsibility to always offer customers the kind of quality they expect.

We aim to earn our customers' trust by addressing quality as a companywide issue. This means providing top-level quality to customers at every stage, from the planning of new vehicles through development, manufacturing, distribution and sales to aftersales service.

### Fair and Swift Action on Major Quality Issues

Our 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 handle a range of eventualities. Our approach to recalls is to conduct them transparently, fairly and promptly. The decision to conduct a recall is based on compliance with relevant laws and consideration of how the issue may affect customers' safety. When a recall is judged necessary, we implement it swiftly, placing top priority on customer safety and minimizing the disruption to their lives.

# Quality Policies and Philosophy

Quality has many aspects, and we seek to provide high quality at all stages of the customer experience: how it feels to use the product itself, the way customers are treated by sales staff in showrooms, the response if problems arise with the product. To achieve this, we pursue effective companywide cooperation at the cross-functional and cross-regional levels. We aim to be recognized by customers as a brand offering top-level quality in both products and sales and services. Vehicle product quality is essential for safe and comfortable long-term use. We aim to provide a high level of quality that meets customer expectations over the entire lifecycle of the product. This includes the perceived quality when a customer opens the vehicle's 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 allows the vehicle to provide many years of use.

We also conduct initiatives to increase customer satisfaction (CS) regarding sales and service quality. Our aim is to exceed expectations at every customer contact point, including dealership visit, purchase, maintenance, inspection and repurchase.

We listen to customers and incorporate their feedback in every process throughout the company in our pursuit of CS.

#### GRI103-1 GRI103-2

# Product Safety and Quality Management

Ensuring the safety of customers who purchase Nissan cars and consistently providing the quality they expect are both important parts of gaining their trust. In order to earn that trust and achieve sustainable growth, Nissan has set the companywide goal of being recognized by customers as a brand offering top-level quality. We have created systems to promote quality improvement globally, with top executives taking responsibility for ensuring these promotions are successful. All Nissan employees work together as one to improve quality around the world.

### Management Systems for Product Safety and Quality

To achieve top-level quality, we have assigned a number of Senior Vice Presidents, headed by the Chief Quality Officer (CQO), to focus exclusively on quality issues. A CQO meeting, chaired by the CQO, is held every month and attended by executives representing each division and region. These meetings work to promote the swift solution and improvement of issues related not just to product quality but also to sales and service quality experiences before and after purchase.

Additionally, in order to fully implement compliance, we have established a three-layer monitoring and audit system and are working to strengthen our audit activities. The first layer consists of each division implementing monitoring activities to ensure strict observance of laws and standards. In the second layer, the Conformity Audit Office conducts audits of those efforts to observe laws and standards. And in the third layer, the Internal Audit Office conducts risk-based audits in accordance with annual plans.

# Product Safety and Quality Achievements

### Listening to Customer Feedback

Quality is a reflection of how successfully Nissan interacts with its customers. In order to provide the value that customers expect and respond rapidly if they are not satisfied, we listen to all feedback and put what we learn to use in measures to improve quality at every stage, from product design and development to aftersales service.

### Responding Rapidly to Customer Feedback

We receive and respond to customer comments and questions worldwide through a range of contact points, including dealers, call centers and surveys.

Our customer call center in Japan receives around 200,000 comments and questions from customers annually. 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 our intranet lets employees actively contribute information to raise the quality of products and services.

# Sharing Customer Feedback

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

There is a space within the company where all employees can freely view customer feedback whenever they like, so that they can incorporate 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 car-life advisors (CAs) at sales companies.

# Incorporating Customer Feedback into Products and Services

We have implemented a system for reflecting customer feedback in our products and services. Reliable information sharing ensures that this feedback is incorporated in the work of all functions, including product planning, R&D, manufacturing and sales.

Product quality is about more than just mechanical faults—it includes any factors that could affect customer satisfaction (CS). We see these factors as issues requiring action and strive to improve quality across all areas.

The value that customers expect from products varies according to their personal tastes and unique expectations. It can also be affected by market factors such as vehicle ownership levels or even climate. Although we have basic specifications for global design, we fine-tune these to meet regional needs. The Chief Quality Engineer (CQE) performs this role, participating in the vehicle manufacturing process from the product planning stage in order to enhance CS and reduce defects. We glean customer perspectives from market information and employee monitors, and prioritize our response to these from the planning and development stages for both products and services.

### Adopting a Customer Perspective and Fostering a CS Mindset

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

This training covers quality improvement measures and CS policy in the Nissan Group, incorporating actual feedback from customers in group discussions. Employees discuss what we can do for our customers and what actions are necessary in the current situation, which fosters a CS-based quality-improvement mindset among individual employees. This training is currently offered in Japan, the United States, Europe, China and Asia and Oceania, with further expansion ongoing.

Since 2003, we have also held Nissan Quality Forums for executives, employees and suppliers. These annual forums use information displays, video presentations and actual vehicles and parts to showcase our latest quality results, customer feedback and activities aimed at meeting targets. The forums are organized cross-functionally by the Total Customer Satisfaction Function (TCSX)\* alongside the R&D, manufacturing, sales and service and other divisions in order to raise all employees' awareness of CS and quality-improvement issues. They are held in Japan, the United States, Mexico, Brazil, the United Kingdom, China, India, Thailand, Indonesia and other locations around the world.

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

# Improving 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 history of *monozukuri*, Japan's tradition of careful craftsmanship, product quality is the foundation for our sustainability as a company. We consider quality from the customer's perspective at all times and respond quickly if a defect occurs, striving to prevent recurrence so as not to inconvenience the customer. We ascertain customer dissatisfaction and address it through all possible means, improving quality to increase satisfaction. We categorize product quality into areas like 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 aftersales service. We monitor the results of third-party quality surveys, using them as internal indices and making improvements through 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 vehicle doors, sit in 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, we evaluate cars using the opinions of numerous employee product monitors and specialists with in-house training. We also survey customers who have purchased or are considering purchasing a Nissan car. We are still working to gain a better understanding of customer perceptions in different markets around the world and incorporate those perceptions in new vehicles from the development stage. We scientifically measure and analyze customer perceptions to gain a quantitative grasp of what makes people feel good. This information shapes our specific design targets.

# Improving Initial Quality

Initial quality issues involve defects that occur within a year of a new car purchase. To ensure that customers are satisfied, we maintain a firm commitment to enhancing quality at the manufacturing

stage for every single product that comes off the line. To this end, we have adopted the Alliance Production Way (APW) as our fundamental approach in this area. The Chief Vehicle Engineer (CVE), who is responsible for development, meets with the CQE to share information from the market in order to promptly respond to customers' wishes and potential satisfaction concerns.

We confirm quality improvements for each process and explore necessary risk-reduction measures by visualizing potential risks at the planning stage.

Applying all of these processes with transparent criteria lets us ensure that new models offer high quality 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. We consistently obtain data for the two to four years of warranty after the initial sale and conduct quality checks on recovered vehicles and parts actually used by customers to identify defects earlier. Analyzing this data helps us develop technologies that are more resistant to durability issues.

# Promoting Risk Evaluation and Reduction Management Among Suppliers

As our production network expands worldwide, the risk of problems related to the quality and supply of parts increases. Our efforts to ensure product quality include working with suppliers to improve quality at all production sites from the design stage onward.

We promote stronger global management at the head offices of our suppliers with global operations even as we work to enhance our own global quality management. Nissan representatives visit each supplier's plants and check the quality control conditions on their production lines. We also offer support for suppliers' efforts to meet the quality control standards we require.

In addition to these activities, we have prepared checklists based on successful resolution of past issues, and work not only with direct suppliers but also with tier-2 suppliers to implement quality improvement measures.

# Swiftly Improving Quality in Local Markets

We are strengthening direct communication with sales companies and customers to promptly identify and respond to customer dissatisfaction and defects. Our TCSX addresses customer dissatisfaction and quality issues based on information from sales companies and the customer call center. It shares information with the R&D and manufacturing divisions to investigate the causes and come up with countermeasures. These countermeasures are incorporated in production models on the market. In this way, we seek permanent solutions to prevent outflow of quality issues.

The global expansion of our corporate activities has increased our potential exposure to customer dissatisfaction and quality issues in more regions around the world. In response, we have established Field Quality Centers (FQCs) with the goal of promptly gaining an understanding of regional quality issues and analyzing their causes locally. There are now 19 FQCs in Japan, the United States, Europe, China, Mexico, Brazil, South Africa, India, Australia, Thailand, Indonesia, Malaysia and other locations. Our FQCs conduct market quality research and analysis in five phases. First, they recall problem products from the market to clarify the facts and conduct detailed interviews to replicate the defects. Next, they bring suppliers together with our R&D and manufacturing divisions to share information, decide on areas for further investigation and assign responsibilities. Based on the findings of these detailed studies, staff members gather again to scientifically pinpoint the cause of the problem and decide on specific countermeasures. These measures are incorporated in future R&D and manufacturing activities and new management structures are put in place to prevent recurrence of reliability issues or incidents.

# Producing Products of Consistent Quality Worldwide

We have adopted the 4G Strategies to produce high-quality products globally. These strategies let us 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. As well as dramatically improving quality in the vehicle production preparation stage, it strives to establish global quality consistency by spreading high standards to manufacturing plants in and outside Japan.

#### Global Training Center (GTC)

Manufacturing quality and productivity depend greatly on the skills of individual workers. To raise these skills to a competitive level in our plants worldwide, the GTC runs classroom lectures and skills training activities based on the Alliance Production Way (APW). Graduates of Master Trainer programs take part in training programs for local staff in regional training centers, efficiently passing their skills on to others.

#### Global Professional Development Center (GPDC)

The GPDC trains logistics specialists to work at manufacturing bases. Training includes parts packaging design, packaging testing and evaluation methods, CAD and optimum logistics cost management to maintain high quality.

#### Global Launching Expert (GLE)

The GLE helps resolve issues related to *monozukuri* (production) during the new vehicle launch phase. Evaluations and advice from GLE core members and support from GLE registered members help us meet QCT (quality, cost, time) targets on every new vehicle launch.

# Quality Evaluation System

Each of our production cars and development models is evaluated using a system called AVES\* to monitor quality on a daily basis. Feedback from customers is incorporated in standardized evaluation criteria which are used to train quality assessment specialists. Only these company-certified experts, known as "AVES Masters," can perform our strict daily assessments.

The assessment process evaluates the vehicle's interior and exterior and tests it while it is in operation, focusing on whether it meets quality standards defined in terms of customer requirements.

During the running tests, carried out on actual roads, assessors check the vehicle in areas including unexpected noise, vibration, stability of handling and the functionality of its various advanced systems. Final responsibility for overall quality is the responsibility of the CQE, who envisages different use scenarios for Nissan vehicles and carries out stringent quality checks accordingly.

\*AVES stands for "Alliance Vehicle Evaluation Standard." AVES is a quality evaluation system used across the Renault-Nissan-Mitsubishi alliance, in which specially trained experts assess 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, we work together with suppliers and conduct inspections for products as well as components.

Each component from our suppliers represents the end-product of a complex manufacturing process that includes planning and development validation, turning design blueprints into prototypes, performance testing and, finally, mass production. We have created a system called ANPQP\*<sup>1</sup> for regulating the necessary quality assurance across this entire series of activities. The ANPQP requires tests to be carried out on every component delivered by suppliers to confirm their high quality. To determine whether new suppliers are able to carry out these tests, we developed the ASES system.<sup>\*2</sup> The ASES contains 240 evaluation criteria to determine if a component is defective and analyze the systems in place to prevent problems occurring. The ASES is applied on-site, at the supplier's factory. New suppliers undergo ANPQP training and are certified as trainers themselves after they reach a specified level. They then conduct training on the supplier's premises and build a system for supplying precision-built components.

Suppliers already dealing with Nissan are given a "Supplier Score Card" containing an assessment of diagnostic measurements like delivered quality and market quality. In addition, the SHC\*<sup>3</sup> system also involves periodic inspections of supplier factories to check their management system. This ensures that suppliers maintain their systems for consistently delivering high-quality components and conduct new initiatives to further improve quality.

- \*1 ANPQP stands for "Alliance New Product Quality Procedure." We created the ANPQP based on IATF16949, a standard for automotive sector quality management systems published by the International Automotive Task Force (IATF), in order to establish supplier quality assurance standards. Click here for more information on ANPQP.
- \*2 ASES stands for "Alliance Supplier Evaluation Standard." The ASES is used to evaluate if a vendor qualifies to become a suitable supplier. Based on 240 criteria at five stages, potential vendors are ranked A, B, C or D. We then form business relationships with the top-ranked industry suppliers.
- \*3 SHC stands for "Supplier Health Check." The SHC is our unique system for checking our suppliers' quality management systems and how they are actually being implemented.

# Improving Sales and Service Quality

As well as aiming to produce high-quality vehicles, we work to increase the quality of our sales and service during the purchasing process, seeking to exceed customer expectations at all contact points. Through effective management of sales and service quality at dealerships in major markets around the world, we strive to improve CS by adhering to the Nissan Sales and Service Way (NSSW). Our goal is to achieve top-level CS in 20 key national markets, including Japan, the United States and major European markets, boosting our brand image worldwide.

# The Nissan Sales and Service Way

The Nissan Sales and Service Way (NSSW) is a set of global guidelines designed to improve customer perceptions of our brands and products and increase satisfaction with our sales and marketing activities and aftersales service. We conduct a range of activities to increase CS and improve sales and service quality based on the NSSW.

In particular, as well as improving our dealership facilities, we set global standards and carry out initiatives to provide customers with a consistent sales and service experience. We aim to respond rapidly to customer dissatisfaction and other issues and review business processes to incorporate feedback collected through contact centers, dealerships, email, social media and other channels.

# Reforming Global Dealership Standards

In response to the diversification of our customers' expectations and lifestyles, we are introducing a new initiative called the Nissan Retail Concept (NRC) to dealerships around the world to promote standardization. We aim to improve CS by improving sales and service quality through a globally consistent brand experience. With the rapid spread of digitalization, consumers' purchasing behavior and ownership experiences are changing dramatically. To respond to these changes, we have introduced global standards for improving our dealership operations, from new standard shop designs to digital environments for dealerships. Adoption of the new standards has already begun in key countries, and more than 1,000 stores had completed the adoption process by the end of fiscal 2018. We will continue to deploy the new concept in our stores around the world.

The new dealership layout and design is intended to appeal to all customers, from those who have come to purchase a new car to those returning for vehicle inspection or servicing, creating comfortable, welcoming spaces that offer needed services as efficiently as possible. We aim to standardize our entire sales and service process for customers in response to diverse customer needs, in order to improve satisfaction among customers who visit dealerships. With the adoption of digital tools, we are aiming to make dealership operations more efficient and assist customers considering the purchase of a new car. To ensure that the new standards are adopted in each country, the Nissan Academy, a special team for educating dealers, will develop and conduct training for dealership staff and management, teaching them to provide an experience that goes beyond customer expectations.

NRC also incorporates key Nissan brand elements such as Nissan Intelligent Mobility, electric vehicles, the NISMO performance sub-brand, light commercial vehicles and Nissan Intelligent Choice (our certified pre-owned car program). We hope to improve customer satisfaction and convenience even as we promote the Nissan brand and expand our business.

To boost the quality of sales and service activities at dealerships, we train specialist staff and continually improve these activities. These specialists analyze dealer operations, develop improvement plans based on their individual situations and support implementation. For example, they visit dealerships after analyzing CS surveys and the voice of the customer, clarify issues by observing workplace operations and interviewing staff, and then discuss potential solutions with the staff and provide guidance allowing the dealership to continue making autonomous improvements.

# SUPPLY CHAIN MANAGEMENT

Supply Chain Strategy Supply Chain Management Policies and Philosophy Supply Chain Management 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. We promote consistency in procurement practices throughout the global supply chain, sharing our vision and principles with business partners and engaging with them to ensure their adoption. We aim to achieve sustainable growth built on a foundation of mutual trust with its business partners. We listen closely to and work with our suppliers as equal partners, developing and maintaining cooperative and competitive relations that enable us to implement best practices.

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# Nissan's Approach to the Supply Chain

To optimize 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. Its name was changed to the Alliance Purchasing Organization (APO) in April 2018, after Mitsubishi Motors joined the Alliance. The new organization aims to help each brand achieve sustainable performance through the steady development of the Alliance as well as through the advantage of economies of scale.

We use common, transparent processes and criteria worldwide to select suppliers and is open to doing business with new partners, regardless of nationality, size or transaction ties in the past. Suppliers are selected after the relevant Nissan divisions meet to examine submitted proposals from a range of perspectives. We explain our decisions to every supplier that takes part in the supplier selection 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, we also adhere 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 (APO)





#### RENAULT NISSAN MITSUBISHI

#### Processes from Supplier Selection to Mass Production



# Working with Suppliers

We aim to make our global supply chain sustainable by conducting ethically, socially and environmentally responsible business at every stage. We collate and manage a database of plant locations, total purchase values and other basic information for all suppliers. We are 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: (1) updating the procurement policy to include responsible mineral procurement and the elimination of antisocial forces based on new Japanese governmental guidelines and regulations; (2) requiring a shared commitment to sustainability activities with suppliers at the time the guidelines are distributed and (3) beginning third-party assessment of supplier sustainability activities as an Alliance initiative from 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 that suppliers comply with laws and regulations. If suppliers are found to be in a state of non-compliance, the guidelines prescribe required responses, such as filing a report immediately, conducting an investigation and formulating corrective measures. In the case of a noncompliance incident, we will take firm action based on our regulations and do everything necessary to prevent a recurrence. In fiscal 2018 no human rights violations, such as discrimination, occurred, and no supplier was 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

We share our environmental philosophy and environmental action plan with suppliers. To improve environmental performance throughout the supply chain, we first published the Nissan Green Purchasing Guidelines in 2001 and have 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, a revised version of the guidelines were published in January 2017. Furthermore, in August 2018, based on the midterm environmental action plan, Nissan Green Program 2022 (NGP2022),\*<sup>1</sup> we revised the content of the guidelines, adding requests that suppliers undertake their own environmental activities. Additionally, in May 2019, in order to strengthen management of environment-impacting substances, we added requirements dealing with supplier self-diagnosis of environment-impacting substance management and related topics, which all suppliers are asked to follow.\*<sup>2</sup>

The Nissan Green Purchasing Guidelines are part of the detailed explanation in the environment-related section of the *Renault-Nissan CSR Guidelines for Suppliers*.

Environmental activities undertaken with suppliers involve the core components of compliance with environmental regulations and Nissan's basic environmental principles, along with activities to reduce the burden on the environment.

As for the former, in response to global trends in such regulations as the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation and the European Reusability/Recyclability/Recoverability (RRR) Directive, we have added new items to the list of banned substances and globally expanded component data management. When selecting suppliers for new models, we check their management of and activities regarding environmentally hazardous substances, informing them of specific actions needed to comply with the REACH Regulation and requesting their compliance.

Based on the Nissan Green Program, we hold annual environmental briefing sessions and have since fiscal 2012 conducted surveys to ascertain CO2 emissions, water usage, waste production and other data related to our burden on the environment. To further enhance our activities in this area, in fiscal 2014 we 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 2018, based on these surveys, we began encouraging some suppliers to improve their environmental activities.
- \*1 Click here for more information on NGP2022.
- \*2 Click here to download the revised version of the Nissan Green Purchasing Guidelines.

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

#### *The Renault-Nissan Purchasing Way* Basic Alliance principles for purchasing

- Shared values with suppliers (trust, respect, transparency)
- Supplier sourcing process
- Support for suppliers

#### Nissan Green Program 2022 ■ Midterm environmental action plan

# Renault-Nissan CSR Guidelines for Suppliers

- Compliance
- Safety and Quality
- Human Rights and Labor -
- Environment
- 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

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. We have 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

We confirm suppliers' acceptance of the *Renault-Nissan CSR Guidelines for Suppliers* and check their environmental management systems and their willingness to advance environmental activities with us at the time of selection. Among newly selected suppliers in fiscal 2018, 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. We then monitor their implementation. We also conduct sustainability training in our purchasing department to ensure that employees conduct checks of suppliers' sustainability activities in their daily work.

If there are issues with the supply of parts and materials, they may lead to problems for Nissan's production and supply chain as a whole. We therefore address sustainability with the following measures: (1) confirming supply risks under normal circumstances; (2) following up annually on quality, cost, delivery, development and management (QCDDM) performance and (3) working with suppliers to craft response plans for natural disasters to ensure production continuity or early restoration of capacity.

We monitor compliance from the perspective of supplier management, constantly assessing the situation at each supplier based on a range of factors. When high risk is identified, we work with the supplier to rapidly draft and implement countermeasures.

In fiscal 2018 there were no suppliers whose compliance was problematic, and no supplier contract was terminated for such a reason.

#### Promotion of Monozukuri Activities with Suppliers

We work to continually improve the competitiveness of our products through the Monozukuri Activities program, a collaboration between suppliers and Nissan that was launched in 2008. Since 2009 these activities have expanded through the joint THANKS

THANKS Trusty and Harmonious Alliance Network Kaizen activity with Suppliers

Activities initiative, which emphasizes trust and cooperation between Nissan and its suppliers. With the goal of working with suppliers to become cost leaders under today's challenging market conditions, we strive 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 our own plants, we are working with major suppliers to reduce their electricity, gas and other energy costs and CO<sub>2</sub> emissions as an energy-efficient THANKS Activities initiative.

In fiscal 2013 we introduced the Total Delivered Cost (TdC) Challenge, aiming to optimize all fluctuating costs, including for specifications, materials, exchange rates and logistics. To achieve the goals of our midterm business plan, Nissan M.O.V.E. to 2022,\* our various functional departments, together with suppliers, are continuously working to forcefully advance the TdC Challenge and improve both quality and supply.

\*Click here for more information on the midterm business 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 Nissan's purchasing policy for the fiscal year, midterm business plan and other matters. In Japan, we hold monthly meetings and directly informs suppliers of our 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 we recognize the contributions of our suppliers to the development of our business and improvement of our performance with awards presented at the global level as well as in each of the regions where we operate. At the Nissan Global Supplier Awards, we present Global Quality Awards to suppliers showing exceptional performance in quality for the year, and Global Innovation Awards to suppliers whose innovative initiatives improved Nissan's brand and product power. 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 other divisions in two categories: product technology and process management. In fiscal 2018 six companies received Global Quality Awards, while Global Innovation Awards went to twelve companies. 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 conflict minerals and published related information on its website.\* Investigations of our 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. We regularly discuss 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 here for more information on our measures against conflict minerals.

#### Conflict Minerals Management

We began conducting conflict-mineral surveys in our major areas of operation (Japan, North America and Europe) in fiscal 2013. Starting in fiscal 2014, we gradually expanded the scope of these surveys to 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 enables Nissan to identify smelting and refining companies that are not procuring minerals that are a source of funds for armed groups in their regions.

We provide the suppliers we survey with manuals describing how to fill in required forms and what tools to use to collate results. In this way, we work to increase understanding of conflict-mineral issues throughout the supply chain.

In fiscal 2018 we conducted surveys in Japan, the United States, 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, we plan to make our 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. We will also continue to seek responses from suppliers that did not reply to the survey.

<sup>\*</sup>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  $\checkmark$ 

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.

We believe that employees should "design their own careers" and that we 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, we support our 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 capabilities of all employees, working constantly to improve its human resource systems to achieve an organization enabling 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 measuring how well the employee achieved certain goals and competency evaluations measuring 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, we invite 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 enhancing the 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. We conduct 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, we implement measures and make improvements if necessary. We also monitor 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 2018, a total of 280 employees applied for approximately 500 open posts, and 132 of them succeeded in getting the positions they applied for.

### Offering Learning Opportunities

Developing human resources is the foundation of our midterm business plan, Nissan M.O.V.E. to 2022.\* Believing that employees are our most important resource and that cultivating their skills is a vital task for us, we support many learning opportunities for employees. We have developed various programs to help employees improve their management and business skills and engage in leadership development. In these ways, employees are encouraged to enhance their skills to build their careers and demonstrate their abilities to the fullest.

Specifically, we implement 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.

\*Click here for more information on Nissan M.O.V.E. to 2022.

#### Monozukuri University

There is a rapid pace of innovation and increasing technological sophistication in the auto industry today. To maintain and develop our *monozukuri* tradition of careful craftsmanship that underpins our internationally competitive product manufacturing, we need individuals who have an understanding of the latest technologies that go into building an automobile and well-rounded personalities with outstanding management skills. We founded Monozukuri University with the aim of developing capable leaders to play a central role in *monozukuri* and pass down our technologies and skills to future generations. This is another example of how we offer learning opportunities and promote activities to develop human resources.

Monozukuri University consists of three organizations: Nissan Technical College, Genba Kanri (shopfloor 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 our efforts to expand our business globally, we must improve the engineering skills of individual employees working across the globe. We offer 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**

We 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, we have moved forward with plans for advanced training covering more specialized content.

#### Education for Technicians

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

#### Improving Management Quality

We have worked to improve the quality of our management at the global level in order to fulfill the goals of Nissan M.O.V.E. to 2022, our midterm business plan, and achieve sustainable growth. In Japan, we have 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, we engage 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.

#### Training Future Leaders

Leadership training is becoming more important for Nissan. In our midterm business plan, Nissan M.O.V.E. to 2022, it is one of the pillars supporting the success of our business strategy. To continually foster future managers and specialists who will lead the company, we take a strategic and systematic approach to training, job rotations and recruitment.

Specifically, we engage 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, team exercises 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.

We are reinforcing our 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. We aim 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, we 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 2018, the system's 13th year, there were 45 employees active as Expert Leaders and 2 management-level employees as Nissan Fellows in a total of 94 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.

#### GRI103-3 GRI404-1

## Human Resource Development Achievements

#### Training Program Achievements at Nissan Motor Co., Ltd.

	FY2016	FY2017	FY2018
Number of trainees	120,219	171,949	241,674
Total hours in training	653,848	689,536	482,103
Hours per trainee	28.8	30.6	21.5
Trainee satisfaction (out of 5)	over 4.2	over 4.2	over 4.2
Investment per employee (¥)	71,000	73,000	86,000

## LABOR PRACTICES

## RESPECTING THE RIGHTS OF WORKERS

Policies and Philosophy on Respecting the Rights of Workers  $\checkmark$ 

Management That Respects the Rights of Workers 💙

Achievements in Respecting the Rights of Workers  $\checkmark$ 

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0.0100 10	0.4101 10	0.4100 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. We have expanded and enhanced our wide-ranging activities to ensure that employees' basic rights are respected.

#### GRI103-2 GRI406-1

### Management That Respects the Rights of Workers

Under the "Value Diversity and Provide Equal Opportunity" code within the Global Code of Conduct, Nissan requires its employees 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 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. We also work to ensure that all employees, both male and female, can work in an environment free from sexual and other forms of harassment.

\*Click here for more information on our human rights initiatives.

### Achievements in Respecting the Rights of Workers

#### Diversifying Workstyles with "Happy 8"

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

\*Click here for more information on "Happy 8."

## LABOR PRACTICES

## DIALOGUE WITH EMPLOYEES

Policies and Philosophy on Dialogue with Employees 
Management to Promote Dialogue with Employees

Achievements in Dialogue with Employees ¥

GRI103-1

### Policies and Philosophy on Dialogue with Employees

For a company to continue offering new value in the face of rapid changes in the social and business climate, 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 and achieving its short- and long-term business goals. In terms of internal communication, we are delivering information globally so that employees will form an 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

We established two communication guiding principles that aim to encourage higher employee engagement: "build trust between the company and employees" and "increase employee motivation." We utilize various communication tools to deepen employees' understanding of our business, products and brand, as well as to explain the direction in which we are heading in order to generate employee confidence in their day-to-day activities and in 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, we nurture a sense of pride in our employees, which in turn will encourage them to contribute to our sustainable growth.

#### GRI103-2 GRI103-3

### Management to Promote Dialogue with Employees

For Nissan, which has more than 100,000 employees working at global production sites and offices, internal communication must be enhanced to instill the corporate mission and management strategies, to make employees feel a part of Nissan and to strengthen corporate governance. To this end, we have set two guidelines for employee engagement: "build trust between the company and employees" and "increase employee motivation." The Global Internal Communications Department is playing a key role in deploying messages in a thoughtful manner, such as through the corporate intranet system that delivers information to all employees globally, materials shared with senior managers or information shared in each region. Employee-executive exchange is also held on a regular basis with the aim of building trust. Furthermore, we offer opportunities for employees to voice their views and shares them with company executives in an effort for constant improvement. Through communication with employees and shared awareness of sustainable growth, we are moving as one in driving the business forward.

#### Global Tools for Dialogue with Employees

We use various tools for communicating with employees, including the Workforce Integration @ Nissan (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 visually engaging cable TV programs that introduce Nissan's activities. In Japan, a printed in-house newsletter called *Nissan News* is published monthly for employees at Nissan production sites. We also hold communication events, such as opportunities for executives to exchange opinions with 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.

## Achievements in 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 the company's 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 Increase Motivation

We are currently working to achieve the objectives of Nissan M.O.V.E. to 2022 midterm plan,\* calling on all employees to embrace our corporate vision and understand the significance of the midterm plan. Employees' confidence in the company's activities and performance is essential for the plan's success. At the same time, we also need to motivate employees, encouraging them to take selfinitiated action. Internal communication activities thus focus on building trust among employees and increasing their motivation.

\*Click here for more information on Nissan M.O.V.E. to 2022.



**Employee Engagement** 

Increasing motivation

### Enhancing Communication Channels

To build trust with employees, companies must disclose information in a fair and open manner, so we punctually provide our employees with information on business results including financial announcements. Renault-Nissan-Mitsubishi alliance teams are organized in such areas as purchasing, engineering, manufacturing and supply chain to accelerate synergies. Information on these activities is shared with employees, enabling them to understand the value that the Alliance can provide.

A deeper understanding of Nissan Intelligent



グローバリに影響を与えるプロフェッショナルたちが日憂には存在します。彼らにとっては当たり前のやり方でも、そのエッセンスか ら学ぶべきことがたくさんあります。そうした如る人ぞ知るプロフェッショナルにシリーズで話を聞きます。

WIN introduces readers to the activities of a range of employees.

Mobility initiatives and the company's products, services and technologies is gained through timely communications that engage employee interest and boost their motivation. We proactively update our employees on our leadership in achieving a zero-emission society, development of autonomous driving technologies, new services using connected technology 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 our sponsorship activities, we also selected employees from each region and invited them to the UEFA Champions League final in 2018. We are planning and holding various events so that not only selected employees but all employees can enjoy the excitement that we provide to society through sponsorship.

We are enhancing coordination among our various departments and with executives and actively sharing information that contributes to relationships of mutual trust and higher employee motivation. Every new fiscal year starts with the CEO delivering the presidential 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 senior 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 developing "ambassadors" for Nissan.

Since we introduced a corporate intranet system called WIN (Workforce Integration @ Nissan), we have been actively used to promote communication, information sharing and collaboration among

employees. WIN has expanded beyond the Nissan Group, and its users now include Nissan's major affiliates as well.

In fiscal 2014 Nissan began issuing Engagement Kits summarizing its global operations, business performance and major achievements. These kits are distributed to senior managers every month and are used as communication tools for information sharing. The senior managers receiving this information are responsible for sharing 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, providing them with the necessary information in a timely manner.

#### Strengthening Communication Between Executives and Employees

We have proactively held communication events where executives and employees can directly communicate with each other. In fiscal 2018 we held town-hall meetings at our Global Headquarters (GHQ) for face-toface dialogue between employees, the CEO and then Chief Competitive Officer (CCO) Yasuhiro Yamauchi on the final vehicle inspection issue and matters related to the misconduct of the company's former Chairman and other individuals.



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

Events called MTP follow-up sessions were also held. At these sessions, executives explained important topics that are part of the Nissan M.O.V.E. to 2022 midterm plan and responded to questions. In fiscal 2018, topics such as the Japanese market and Nissan Sustainability 2022 were discussed during three MTP follow-up sessions. Live web conferences called MIE, in which EC members and senior managers engage in discussions, were held eight times in conjunction with financial announcements, and information was provided in a timely fashion.

Employees who participated in such communication events made comments such as "I was able to obtain necessary information," "top management made an effort to communicate the facts" and "I could feel the sincere enthusiasm of top management."

#### Employee-Executive Exchange

In order to build trust, it is important for Nissan to stay aware of its employees' thoughts and opinions and ensure that they are shared with top management. We have made efforts to communicate information that will lead to greater employee trust toward the achievement of 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, we conduct 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, leading to future planning that clarifies the scope of the audience and content of communications.

> Plan Plan based on employee feedback

Act Implement improvement actions based on survey results Do Define audience and implement communication activities

Check Convey survey results to executives

## EMPLOYEES' HEALTH AND SAFETY

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

Employees' Health and Safety Achievements V

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## Employees' Health and Safety Policies and Philosophy

Nissan places great importance on occupational health and safety in the collective agreement between the company and its labor unions, has formulated a Basic Policy on Health and Safety and promotes various health and safety practices in the workplace. In the Basic Policy, as a shared core value, we tout "The health and safety of our fellow workers has top priority." Our 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 pursuing the creation of a bright and lively workplace free from accidents and illness."

In accordance with the Basic Policy, we promote 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.

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## 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. We give top priority to worker safety as well as their well-being as a matter of company policy. The work environment relating to employee safety and health is managed uniformly according to the Basic Policy at all Nissan sites, both in Japan and globally.

In Japan, we hold a Central Safety and Health Committee meeting each year chaired by the executive in charge of human resources 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. The Safety and Health Committee at each facility meets each month, and these meetings are attended by labor union representatives. A safety and health officer and a traffic safety officer are assigned at each workplace to ensure the effectiveness of day-to-day safety activities. Globally, each facility applies the PDCA (plan, do, check, act) 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, its details and responses are swiftly shared with facilities around the globe in an effort to prevent the recurrence of similar accidents. Our global midterm goal is to reduce fatal accidents to zero, including people from other companies working at Nissan premises, and to halve the fiscal 2016 number of industrial accidents by fiscal 2022.

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, we design workplaces with employee safety and health in mind.

We work proactively at all levels to identify potential issues or concerns in the workplace environment,

develop measures to address them and make it easier for employees to get their job done. In 2010, we standardized the safety indices that previously differed from one global site to another. Safety performance is monitored quarterly for each production site.

#### Specialized Mental Healthcare

We have established a specialized team led by a mental health professional to care for the mental wellbeing of employees. In 2005, in cooperation with external mental healthcare specialists, we 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 consultation, diagnosis and counseling. We also offer 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 our mental health training was extended to cover items bolstering the emotional health of individual employees. We promote mental healthcare through a wide range of approaches.

#### Rehabilitation Center to Facilitate Return to Work

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

#### GRI103-3 GRI403-2

### Employees' Health and Safety Achievements

#### Creating Safe Workplaces

Nissan employs its own safety management diagnostic methods, as well as a riskassessment 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



#### Lost-Time Injuries Frequency Rate (Japan)

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 we have been systematically carrying out Kiken Yochi Training (KYT)—literally "riskprediction training" —at plants in Japan to raise awareness among individual workers of the risk of accidents and thereby help prevent their occurrence. This training instills an awareness of danger among workers, thus reducing the risk of their becoming involved in work accidents. Worker sensitivity is enhanced through repeated training.

We have 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 help prevent similar disasters or accidents.

There were no fatal accidents involving Nissan employees globally in fiscal 2018. However, in fiscal

2011, 2012 and 2013 there was one fatality each year in South Africa, Spain and North America, respectively. In fiscal 2016, two fatal accidents occurred—one in North America and one in India. We investigated these fatal accidents and have implemented strict countermeasures to prevent such accidents from happening again at any of our plants. We monitor lost-time injury frequency rates,\* and has confirmed lower rates than the automobile industry average. As we are currently transitioning to a more comprehensive approach to frequency rate aggregation, this report contains only Japan's domestic rates.

\*Total lost-time injury cases  $\div$  total working hours  $\times$  1 million

#### Improved Production-Line Environment

Nissan seeks to fulfill its mission of engaging in "human-friendly production" by continuously improving the workplace environment at its manufacturing facilities worldwide. At workplaces with high summer temperatures, for example, we have installed internal cold-air ducts and ensured there are set breaks to drink water, particularly in locations with considerable workloads. Constant improvements are being made to allow employees to work in a comfortable environment.

#### Certified Health and Productivity Management Organization Recognition Program (White 500)

In today's society, employee health is increasingly viewed less as a question of individual effort than a key factor must be corporations must address to survive. This has put strategic management of employee health and productivity from a business perspective in the spotlight. At Nissan, we believe that investing in employee health improves both vitality and productivity, energizing the entire organization and improving results. Accordingly, we take a strategic approach to creating safe and pleasant workplace environments that promote both physical and mental health among employees. Based on these principles and their successful application, NML was recognized by Japan's Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (literally, "Japan health conference") under the 2019 Certified Health and Productivity Management Organization Recognition Program in the large enterprise category (White 500), announced in February 2019. The White 500 honors organizations with particularly effective health and productivity management based on regional health initiatives and programs promoted by the Nippon Kenko Kaigi. We will continue to strengthen our health maintenance activities aimed at staff of all ages.

## COMMUNITY ENGAGEMENT

Community Engagement Policies and Philosophy Community Engagement Management Contributing to Local Communities: Achievements

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## 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.

We work with a variety of stakeholders, both governmental and nongovernmental, pooling our respective strengths to address increasingly complex social issues. 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

We reviewed our 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 inequality. In addition to zero emissions and zero fatalities, areas where any automotive manufacturer should make sincere efforts, we are promoting zero inequality (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. We will not only provide financial assistance for activities in these areas but also ensure that those activities are "distinctly Nissan," making full use of our automotive heritage, expertise, products and facilities.

We emphasize communicating and working with specialized nonprofit and nongovernmental organizations that have great expertise in their fields to ensure that its social contributions are effective. We actively support the involvement of our employees in social contribution activities.

## For a Cleaner, Safer and More Inclusive Society



## 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.

We are 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 inequality 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. These 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." We actively engage in efforts to reduce the environmental burden on the planet and prioritizes the environment in our social contribution activities. Central to our approach are educational programs that cultivate a deeper understanding of environmental issues toward achieving a low-carbon society. Since 2017 we have expanded our partnerships with international environmental protection organizations. We continued a forest conservation program in Indonesia in collaboration with Conservation International, an environmental NGO, and supported climate change education and awareness with the environmental conservation organization WWF Japan.

#### Zero Fatalities

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

#### Zero Inequality

We embrace diversity as a management strategy in recognition of its crucial role in boosting corporate competitiveness. Nissan's social contribution activities share this awareness and are aimed at mitigating poverty, providing assistance to the financially and socially disadvantaged and sending emergency relief to disaster-stricken communities. In 2018 we expanded our educational program to cover more areas within Thailand in partnership with the NGO Care International Japan, in addition to existing humanitarian efforts in North America, Asia and Oceania in collaboration with Habitat for Humanity.

#### Nissan as a Community Member

We aspire to be a good corporate citizen that people are glad to have in their community. As such, we strive to be a valuable member of and active contributor to local communities wherever we operate. We support communities in a variety of ways, such as by assisting with local events, sponsoring neighborhood cleanups and other environment-improvement activities near Nissan facilities and opening those facilities to public tours. Many employees actively participate as volunteers.

## Contributing to Local Communities: Achievements

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## Social Contribution Achievements in FY2018

Global social contributions (FY2018): ¥1.79 billion Social contributions include:

- Expenses for implementing philanthropic activities (excluding labor costs)
- Monetary donations and NPO membership fees for philanthropic purposes
- Cash equivalents of in-kind donations
- Sponsorship fees for philanthropic initiatives

#### Breakdown of FY2018 Social Contributions (Nissan Global)

	Philanthropic activities	Monetary donations	In-kind donations (cash equivalent)	Sponsorships, etc.	Total
Amount (¥ million)	412	847	270	255	1,785
% of total	23.1	47.5	15.1	14.3	100

Donations for disaster relief	Disaster	Contribution in FY2018	
	Torrential rains of July 2018 (Japan)	<ul> <li>¥10 million donation from Nissan Motor Co., Ltd. to the NGO Japan Platform.</li> <li>Donation from employees of Nissan Motor Co., Ltd. plus matching donation from the company to the Japanese Red Cross Society.</li> </ul>	
	Torrential rains in and around the southern Indian state of Kerala (India)	<ul> <li>7 million INR donation of disaster relief funds from Nissan Motors India (NMIPL) to the state government.</li> </ul>	
	Eastern Iburi Earthquake in Hokkaido (Japan)	<ul> <li>¥5 million donation from Nissan Motor Co., Ltd. to the Japanese Red Cross Society.</li> <li>Two Nissan LEAF vehicles lent to the towns of Mukawa, Atsuma and Abira.</li> <li>Four thousand 500 mL bottles of drinking water provided.</li> </ul>	
	Earthquake in Sulawesi (Indonesia)	<ul> <li>1 billion IDR donation from Nissan Motor Indonesia (NMI).</li> </ul>	
	Sunda Strait Tsunami (Indonesia)	<ul> <li>Donation from employees of NMI plus a matching donation from the company of 10 times the amount raised.</li> </ul>	

## Zero Emissions

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

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

One educational program is the Nissan Waku-Waku Eco School,\* designed to deepen schoolchildren's understanding of global environmental issues and the initiatives undertaken by Nissan to solve them. Through experiments with model cars, test rides in the Nissan LEAF and other demonstrations, participants experience the latest environmental technology. As well as teaching participants about environmental issues, the program encourages them to reexamine how environmentally friendly their own daily activities can be.

This program has been well received, so that the number of Eco School classes in Japan has increased. In fiscal 2018, around 21,100 pupils, mainly in Kanagawa Prefecture, attended the program. As of the end of March 2019, some 83,000 children in all have participated in Nissan Waku-Waku Eco School since its launch. Employees from many divisions have been certified by Nissan as teachers in the program. A total of 373 employees, mainly from the engineering division, volunteered to support the classes. The program is conducted not only by visiting elementary schools but also by inviting schoolchildren to our Tochigi, Iwaki, Yokohama, Oppama and Kyushu Plants.

Outside Japan, under the banner of the Nissan Skills Foundation, Nissan Motor Manufacturing (U.K.) in Sunderland runs a wide ranging series of educational programs from primary and secondary schools. In fiscal 2018 it worked with 12,341 young people from age 5 to 19.

In China, Nissan (China) Investment (NCIC) and three joint venture companies offer educational opportunities. We have expanded the scale of lessons utilizing the Internet, and in fiscal 2018 more than 145,000 children took part the programs.

\*Click here for more information on the Nissan Waku-Waku Eco School.

# Partnership with the World Wide Fund for Nature Japan (WWF Japan)

We have entered into a partnership with the environmental conservation body WWF Japan to support its climate change program. In March 2019, we supported WWF Japan's Earth Hour 2019 environmental awareness event, with Nissan's regional companies around the world taking part in a symbolic lights-off event. We encouraged employees worldwide to participate, making this a sustainability initiative on a global scale. We also contributed to the operation of 100% renewable energy events organized by WWF Japan in Tokyo and Yokohama by providing the use of two Nissan LEAFs charged with renewable energy.



Earth Hour 2019 event at Tokyo Skytree Town.

#### Partnership with Conservation International (CI) (Indonesia)

In 2017, we began working with the environmental NGO Conservation International (CI) to restore forests around Indonesia's Mount Agung, where the environment has deteriorated noticeably despite being the source of water for the urban areas of Bali. This initiative takes a comprehensive approach, seeking to improve the environment around rivers and coastal areas by preserving forests in mountainous regions. Conservation activities



CI Indonesia developed a comic book to deepen understand of environmental issues in Bali.

are conducted in conjunction with government bodies and local communities. We also operate environmental awareness education programs for the children of these communities.

# Urban Green Lab (UGL): A Unique Environmental Education Program (U.S.)

Nissan North America (NNA) supports a nonprofit organization in Nashville, Tennessee called Urban Green Lab (UGL). UGL gives children the opportunity to think and learn about environmentally friendly, sustainable lifestyles, connecting these with their own experiences. With Nissan's support, and in partnership with Vanderbilt University's Peabody College of Education and the Dept. of Environment & Conservation, UGL created Tennessee's first-ever statewide curriculum on sustainable living and waste prevention and launched it in both Nashville public schools and Memphis. In fiscal 2018, 16 Memphis school "learning communities" (clusters of teachers) were established and 27 teachers trained. UGL and Nissan have a special partnership due to their shared concern for the well-being of their communities and the valuable natural resources we share. Each year Kiddovation is a fun event where our organizations partner together as UGL brings the Mobile Lab to NNA Headquarters and educates employees' children on sustainable practices that they can implement at home with their parents.

## Zero Fatalities

# Partnership with the Federation Internationale de l'Automobile (FIA) (Global)

Nissan is an official supporter of FIA Action for Road Safety,\* a campaign to raise public awareness of safer roads, as advocated by the Federation Internationale de l'Automobile (FIA). We widely publicize the campaign's message about the importance of safe driving and promote the FIA Golden Rules, a compilation of rules for traffic safety.

\*Click here for more information on FIA Action for Road Safety.

#### Hello Safety Campaign to Protect Children (Japan)

Since 1987 we have collected donations from employees for the Hello Safety Campaign, which we launched in Japan in 1972 to contribute to the promotion of traffic safety awareness campaigns near our business sites. In fiscal 2018, donations reached about ¥1.1 million. In addition, gifts to help prevent traffic accidents were sent to children in the neighborhoods of Nissan business sites through local traffic safety associations, municipalities and other organizations.

# New Campaign Launched to Increase Rear Seat Belt Use Rates (India)

Nissan Motors India (NMIPL), in cooperation with the SaveLIFE Foundation, an NGO promoting traffic safety, and another NGO called the School Health Annual Report Programme (SHARP), carried out the first ever survey on rear seat belt use in 11 Indian cities. Based on the results of the survey, NMIPL launched a campaign to deepen understanding of the importance of seat belts and encourage their use. Because the survey revealed that



NMIPL developed the "seat belt shirt" with a renowned fashion designer.

many people are concerned about seat belts causing wrinkled or disheveled clothing, NMIPL partnered with a renowned fashion designer to develop the "seat belt shirt," combining fashion and functionality, as well as launching India-wide awareness activities through social media. In the future, NMIPL plans
to run educational programs for 200,000 children at schools across India to further raise awareness of traffic safety.

## Zero Inequality

# Educational Program in Cooperation with CARE International (Thailand)

Since 2017, we have run the Youth Leadership Development Program for students in middle and high schools in Ayutthaya and Rayong provinces in Thailand. In these classes, held in cooperation with local schools, students learn leadership, teamwork and other qualities necessary in community development, along with science, technology, engineering and mathematics (STEM) content.

In conducting classes, the focus is placed on supporting female students in particular. In



Youth Leadership Development Program.

fiscal 2018, the program was expanded to schools in Samut Prakan province, near Nissan Motor Thailand (NMT), and NMT employees participated in program operations.

### Partnership with Habitat for Humanity (North America)

NNA has been collaborating with the NGO Habitat for Humanity continuously since 2006. Habitat for Humanity, an international aid organization that fosters hope by helping people build or improve their homes, has a vision of "a world where everyone has a decent place to live." The nonprofit works to construct homes, revitalize neighborhoods and support families' self-reliance in more than 70 countries across the world.



An NNA employee volunteer team helps build a house.

In fiscal 2018, NNA sponsored eight families. Nissan employees invested a total of 10,440 volunteer hours in support of partner families. We also donated four Nissan trucks in addition to a social media

campaign. Marking the third year of our support for the Home is the Key campaign, we donated \$5 for every time #HomeIsTheKey was shared on social media, up to \$250,000.

## Sponsorship of Disability Sports (Japan)

In December 2018, we sponsored the Nissan Cup Oppama Championship 2018 (19th National Wheelchair Marathon) in Yokosuka, Kanagawa Prefecture, co-hosting the event with 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, and Oppama Station, 662 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 (NATC), in the city of Atsugi, Kanagawa Prefecture, contribute to the local community by cooperating with local events, such undertaking neighborhood cleanups. 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. The eighth race, held in March 2019, attracted 762 runners and 308 volunteers.

\*1 Click here for more information on the Nissan Cup Oppama Championship (Japanese only).

\*2 Click here 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 activities that are engaging and fun, we deepen young people's understanding of *monozukuri*, Japan's tradition of craftsmanship and manufacturing.

In Japan, the magic of *monozukuri* is shared by Nissan employees through elementary schoolvisit programs: the Nissan Monozukuri Caravan and the Nissan Design Waku-Waku Studio.\* Some 22,000 children participate in the programs every year. In China, NCIC and other regional companies hold classes for pupils.



The Nissan Skills Foundation promotes STEM education for female students.

#### 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 was established in 2014. As of June 2019, it has engaged more than 50,000 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 were supported by Nissan. One core program for the foundation is Industrial Cadets, a nationally recognized program aimed at helping pupils aged 13—14 to engage with manufacturing and engineering professionals. More than 1,600 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. These female only sessions have now engaged with over 1,800 young women, and female participation in all programs is 46%.

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

### Education Support for Children (China)

Since 2013, 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, painting, intelligent driving and the basics of automotive engineering, as well as special-edition programs for Nissan dealerships. A total of four companies in China began holding these classes in 2015, expanding in scale each year and actively engaging in educational programs.



Nissan Dream Classroom in Beijing.

In 2018, NCIC held Nissan Dream Classroom activities toward society. Through cooperation with Nissan

dealerships, Beijing Auto Museum and local auto shows, the program was offered in various platforms and benefited 145,000 students by the end of the year.

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

In the United States, NNA is investing in the workforce of tomorrow through support of STEM initiatives and technical education training programs. We provide financial support to develop STEM programs for students in elementary, middle and high schools and to support university STEM programs. In Tennessee, where Nissan has two major assembly plants, Nissan and its employees support the Music City BEST (Boosting Engineering Science and Technology) Robotics



Music City BEST Robotics Competition 2018.

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 2018, 399 students took part, and 44 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 to develop technological literacy skills that may help shape their long-term education and career direction.

NNA also supported the running of the Lipscomb University/Nissan BisonBot Robotic Camps 2018 at Lipscomb University in Tennessee. During June and July 2018, there were 129 participants, aged 5 to 16, who studied age-appropriate robotics technologies. The goals for the camps were to motivate students from diverse backgrounds groups to pursue careers in science and engineering, and to allow participation in hands-on experiences designing, building and learning about robots.

## Nissan as a Community Member

## Addressing the 3/11 Disaster (Japan)

# Employee Volunteer Activities in Hirono and Namie, Fukushima Prefecture

We provided various forms of support in the immediate wake of the Great East Japan Earthquake of March 11, 2011, and we have continued to help affected regions rebuild through strong employee participation. In fiscal 2018 we continued our support activities from the previous year in the district of Futaba, Fukushima Prefecture, with the participation of 30 employees from several Nissan facilities. Together with the Iwaki OtentoSUN Enterprise



A group photo during volunteer activities in Hirono and Namie.

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 Hirono and operating a study tour in Namie. Some of the solar panels assembled by Nissan employees were used to install lighting for Ohirayama Cemetery, where a cenotaph to the victims of the earthquake is located.

### Bringing Smiles to Children in Disaster-Stricken Areas

Established in 2011 with the goal of helping children in disaster-stricken areas smile again, the Nissan Smile Support Fund offers assistance that meets the changing needs of such regions, operating free schools and places to go after school and providing learning venues for deepening regional understanding as well as recreational and nature experience programs. Programs are conducted by 10 NPOs that are independently active in Iwate, Miyagi and Fukushima Prefectures.

## Addressing Other Natural Disasters

# Support for Western Japan After the Torrential Rains of July 2018 (Japan)

We donated ¥10 million to the NGO Japan Platform for people affected by the torrential rains of July 2018. We also matched donations from individual employees to the Japanese Red Cross Society, doubling the amount raised and resulting in a total donation of approximately ¥7.52 million for disaster relief.

# Support for Kerala and Other Regions in Southern India Affected by Torrential Rains (India)

To support the people affected by the torrential rains of August 2018, NMIPL donated 7 million INR to the Kerala Chief Minister Distress Fund.

# Support for Regions Hit by the Eastern Iburi Earthquake in Hokkaido (Japan)

To help people affected by the earthquake of September 2018, we donated ¥5 million to the Japanese Red Cross Society. We also lent two Nissan LEAF vehicles to the towns of Mukawa, Atsuma and Abira, and provided four thousand 500 mL bottles of drinking water through the Seicomart convenience store chain.

# Support for Regions Hit by the Sulawesi Earthquake and Sunda Strait Tsunami (Indonesia)

Nissan Motor Indonesia (NMI) donated 1 billion IDR to support people affected by the earthquake of October 2018. Additionally, when NMI employees held a donation drive to support disaster-stricken areas after the Sunda Strait Tsunami of December 2018, NMI also donated ten times the total amount they raised.

## Foundation Support Activities (U.S., Australia and Brazil)

In the United States, we support many communities through the Nissan Foundation, which funds educational programs encouraging people to value the cultural diversity that exists within American society. Established in 1992, the Nissan Foundation has contributed over \$10.75 million to more than 120 nonprofit organizations across the country as of the end of March 2019. In fiscal 2018 the foundation donated \$730,000 to 29 U.S. organizations. Nissan Australia (NMA) also supports philanthropic activities through the Nissan Australia Foundation. Since fiscal 2017 it has funded small and medium-sized Australian organizations, helping to expand their activities and promoting STEM and traffic safety education. NMA has adopted a support system for encouraging employees to take part in volunteer activities and to make donations.

Additionally, Nissan Do Brasil Automoveis (NBA) reexamined the activities of the Instituto Nissan, established in 2013 for philanthropic purposes, revitalizing and strengthening its programs for encouraging employee volunteer activity.

## Nissan Global Foundation (Japan)

The Nissan Global Foundation\* pursues the vision of realizing a prosperous future society through human resource development by conducting various training programs.

One main focus is enhancing science education at elementary and middle schools and science workshops by fostering logical and scientific thinking skills among schoolchildren. The foundation grants ¥700,000 per project for teaching material in two years. In addition, the foundation grants "Science Education Awards" to schools with the best performance so as to encourage competition and promote dynamism.

Additionally, since fiscal 2018, the foundation has awarded the Nissan Global Foundation "Rikajo" Prize to elementary and middle schools, museums and other educational institutions that have dramatically increased interest in science among female students.

\*Click here for more information on the Nissan Global Foundation. \*Click here for more information on the Nissan Global Foundation official website in Japanese.

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

Founded at the University of Oxford in 1981, 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.

\*Click here for more information on the Nissan Institute of Japanese Studies.

# GOVERNANCE

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# GOVERNANCE

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## Governance Policies and Philosophy

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.

In order to create unique and innovative automotive products and services, and deliver superior measurable value to all stakeholders, Nissan will pursue its vision of "enriching people's lives" as a company that is trusted by society, and address improvement of corporate governance as one of its most prioritized managerial tasks. We will conduct our business while considering society's expectations and our social responsibilities and devote ourselves to the development of a sustainable society by aiming for sustainable growth of our business.

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 we will actively disclose our initiatives to this end. We have extensive global operations with numerous stakeholders around the world. It is essential that we continue to earn their trust while ensuring the high ethical standards and compliance of all employees. In 2001, we established the Global Code of Conduct,\*<sup>1</sup> which is rigorously followed by Group companies around the world.

Corporate governance,\*<sup>2</sup> compliance and risk management are key factors in our business management. We have selected a new corporate form consisting of a company with three statutory committees, separating management from supervision, oversight and auditing. Our global approach to governance is founded on three pillars: improving the transparency of the decision-making process and making business execution speedier and more flexible; carrying out compliance based on high ethical standards among all employees; and establishing an effective and appropriate riskmanagement system.

\*1 Click here for more information on the Global Code of Conduct.

\*2 Click here for more information on the Corporate Governance Guidelines.

# CORPORATE GOVERNANCE

Corporate Governance System in Detail V

Avoidance of Conflict of Interest 💙

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### Corporate Governance System in Detail

In order to create unique and innovative automotive products and services, and deliver superior measurable value to all stakeholders, Nissan will pursue its vision of "enriching people's lives" as a company that is trusted by society, and address improvement of corporate governance as one of its most prioritized managerial tasks. We will conduct our business while considering society's expectations and our social responsibilities and devote ourselves to the development of a sustainable society by aiming for sustainable growth of our business.

We are developing new structures to strengthen our corporate governance system. On June 25, 2019, a new corporate form was selected for Nissan Motor Co., Ltd. consisting of a company with three statutory committees, clearly separating management functions and supervisory, oversight and auditing functions. In the past, directors supervised the execution of important business operations as well as the duties of individual directors, but the change in structure to a company with three statutory committees has separated execution from supervision. Those with the newly established executive officer role are responsible for the execution of business operations, while members of the Board of Directors focus on supervision of their assigned duties. This has improved the transparency of the decision-making process and also made business execution speedier and more flexible. Furthermore, by increasing the number of outside directors to a majority of the board, we are working to reflect a diversity of viewpoints into our management and strengthen our supervision function still further. The Board of Directors has established three committees: the Nomination Committee, which decides on candidates for director positions; the Compensation Committee, which sets compensation for directors and executive officers; and the Audit Committee, which audits the business execution of directors, executive officers, and those with similar responsibilities. Outside directors make up more than half of each committee, and play a leading role in the Nomination and Compensation Committees. This ensures healthy governance, with supervision, oversight and auditing by the Board of Directors and

other corporate bodies heightening the effectiveness of our structures in terms of internal controls, compliance and risk management. Officers and employees of Nissan Motor Co., Ltd., including executive officers, will sincerely respond to this supervision, oversight and auditing.

In addition, we announce clear management targets and policies to all stakeholders and disclose our performance promptly with a high degree of transparency.

We have also established a corporate governance system that maintains business transparency. The system allows us to implement various monitoring systems, as well as assess and manage risks that have the potential of preventing us from achieving our business goals. In addition to carrying out cooperation among sites in the regions in which we operate, we have set up global management systems and provide relevant training programs to our employees and business partners. We aim to disclose governance information with even greater transparency in future.

> Click here for more information on the ratio of men to women on our Board of Directors (as of June 25, 2019).

#### Initiatives to Strengthen Corporate Governance System

- (1) Separation of management and supervisory functions
- (2) More independent outside directors
- (3) Nomination, Compensation and Audit Committees led by independent outside directors

#### Board of Directors System

Our Board of Directors, led by independent outside directors, decides the basic direction of management by taking a variety of perspectives into account and plays the role of supervising the executive directors. The number of directors on the board is sufficient to facilitate lively discussions and swift decision-making. In order to create an environment where discussions in board meetings are led by independent outside directors, these directors constitute a majority of the board, with one of them serving as board chair.

The Board of Directors decides on basic management policies and important matters set forth under the law, articles of incorporation and regulations of the Board of Directors itself. In order to carry out effective and flexible management, as a general rule, the Board of Directors delegates much of its power to decide on business activities to executive officers. As of June 25, 2019, the Board of Directors consists of eleven directors, seven of whom are outside directors.

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

### Nomination Committee System

The Nomination Committee has the authority to determine the content of the general shareholder's meeting agenda concerning the appointment and dismissal of directors. It also has the authority to decide on the content of the Board of Directors meeting agenda concerning the appointment and dismissal of representative executive officers and to formulate an appropriate succession plan regarding the President and Chief Executive Officer and review it at least once a year. The Board of Directors appoints a majority of the members of the Nomination Committee from among the independent outside directors. The committee chair is also an independent outside director. As of June 25, 2019, the Nomination Committee consists of six directors, five of whom are independent outside directors.

#### Compensation Committee System

The Compensation Committee has the authority to set policy regarding decisions on the content of the compensation received by individual directors and executive officers as well as the actual content of the compensation received by individual directors and executive officers.

The Board of Directors appoints exclusively independent outside directors to the Compensation Committee, including its chair. As of June 25, 2019, the Compensation Committee consists of four directors, all of whom are independent outside directors.

#### Audit Committee System

The Audit Committee consists of directors who are sufficiently qualified and capable to audit the business execution of executive officers. In addition, the Audit Committee appropriately audits effectiveness with regard to the monitoring function of the Board of Directors on an ongoing basis. The Audit Committee is also the final entity to receive any whistleblower's report regarding any allegation that involves any member of management, including any executive officer.

The Board of Directors appoints at least a majority of the members of the Audit Committee from among the independent outside directors. The committee chair is also an independent outside director. As of June 25, 2019, the Audit Committee consists of 5 directors, 4 of whom are independent outside directors.

In order to allow the Audit Committee to perform its audits effectively and efficiently, the necessary staff are provided to the Audit Committee secretariat, and those staff members carry out their duties under the direction of Audit Committee members. Furthermore, evaluation of the Audit Committee secretariat's staff is carried out in conference between committee members, and transfers and reprimands require approval from the Audit Committee.

### Executive Officer System

Executive officers decide on business activities which are delegated in accordance with the resolutions of the Board of Directors, and execute the business of the Nissan Group.

Several conference bodies have been established to deliberate on and discuss important corporate matters and the execution of daily business affairs. Furthermore, in the pursuit of more efficient and flexible management, the authority for business execution is clearly delegated as much as possible to corporate officers and employees.

As of June 25, 2019, nine executive officers, two of whom are representative executive officers, are appointed.

#### Basic Principles of the Internal Control System

We aim to provide superior value to all stakeholders as a world-leading, trusted company well into the future. We consider healthy governance the foundation for this, and are engaged in a range of activities to achieve it. 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 executive officer is assigned to oversee the internal control systems as a whole.

#### Audit System

We have adopted a system under which the outside directors, Auditing Committee, department for internal audit and outside accounting auditors coordinate to improve the effectiveness of our internal control systems. Independent outside directors lead our Board of Directors, deciding the basic direction of management and supervising the execution of duties by directors, executive directors, and others with similar responsibilities. The Audit Committee takes charge of the department for internal audit and instructs it with regard to auditing, and the department for internal audit shall report to the Audit Committee the status of the performance of duties and any findings therefrom on an ongoing basis. The Audit Committee also receives similar reports from the accounting auditors, as well as detailed explanations on the status of the quality control of internal audits, to confirm whether their oversight is at a suitable level.

### Independent Internal Audits

We have established a global internal audit unit, an independent department to handle internal auditing tasks. Under the control of the head of internal audit, audit teams set up in each region carry out efficient, effective auditing of our activities on a groupwide and global basis.

#### Nissan's Corporate Governance System



\*As of June 25, 2019.

### Avoidance of Conflict of Interest

In case of any transaction that involves any conflict of interest between the company and a director or executive officer, the Board Regulations provide that board approval, as well as a post-facto report to the board of important facts associated with the transaction, are required. Given the possibility of conflict of interest, the representative executive officer of the company must not concurrently serve as a director, executive officer, or any other officer or employee of a major shareholder; Mitsubishi Motors Corporation, which is one of the other parties of the Alliance; or any subsidiaries or affiliates of the above. If an executive officer of Nissan, that officer and Nissan shall promptly take the necessary measures for the officer to leave the other company.

Regarding the designation of Audit Committee members, the company's Corporate Governance Guidelines provide that, given the potential conflict of interest with minority shareholders, it is not desirable that the Audit Committee should include any person who has experience serving as a director, executive officer or other officer or employee at a major Nissan shareholder or a subsidiaries or affiliate of same (except for a person seconded from Nissan).

In addition, the company has established a Director Conflict of Interest Resolution Policy which defines conflicts of interest between a director and the company, requires directors to report any actual, potential or perceived conflicts and also establishes procedures to resolve such conflicts.

> Click here for more information on Corporate Governance Report.

## RISK MANAGEMENT

Risk Management Systems 💙

ESG Risk Management 💙

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## **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 our business environment, we have 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, we design appropriate countermeasures. At the end of each fiscal year, the head of internal audit assesses the control level of each risk and determines the effectiveness of each risk management activity. In addition, a progress report is made as appropriate to the Board of Directors.

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, we have created an area on our 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 we operate has been increasingly volatile in recent years, including such aspects as the widespread adoption of new technologies and growing geopolitical risks. We will continue to bolster our activities in this area so we can appropriately meet these changes.

## Protecting Personal Data and Reinforcing Information Security

We share our 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. We reliably address issues by identifying internal and external information leaks as they occur worldwide and reinforce information security on a timely basis. To thoroughly educate and motivate employees to adhere to relevant policy, we institute regular in-house educational programs.

Moreover, we recognize our social responsibility to properly handle customers' personal information in full compliance with the respective personal information protection law in each region. We have set up internal systems, rules and procedures for handling personal data. All Group companies are fully enforcing these processes.

There were no major instances of loss or leaking of personal information at any Group company during fiscal 2018.

> Click here for more information on Risk Management.

## 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, as part of our product strategy developing process, we monitor the impact of various risk scenarios, such as global market changes and demand deteriorations, on our future profitability based on the product lineup plan. We periodically monitor the impact of these scenarios to secure future profitability and sustainable growth, as well as updating our 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, we have introduced and operate 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 our 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 co-chaired 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, our compliance with laws and ethical standards is monitored by regional and local compliance committees, which report to the Global Compliance Committee. We also have a globally integrated whistleblowing system, which allows employees to report suspected compliance issues to management.

In addition, we have 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. We make efforts to prevent noncompliance and reputation risk by raising awareness through the implementation of various activities, including education and training programs.

> Click here for more information on Risk Management.

# COMPLIANCE

Enhancing Compliance Anti-Bribery Business Ethics Security-Related Export Controls Nissan's Commitment to Tax Transparency

Nissan understands that acting with integrity and 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 maintain the highest ethical standards as they carry out their duties. To raise compliance awareness throughout the company, Nissan has established a Global Risk & Compliance Office, as well as specialized departments, and appointed officers to promote compliance in each region where it operates.

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## Enhancing Compliance (Preventing a Reoccurrence of Nonconforming Final Inspections)

# Regarding Nonconforming Final Vehicle Inspections at Nissan's Plants in Japan

After the discovery in September 2017 of nonconformities in the final vehicle inspection process at its plants in Japan, Nissan began a full and comprehensive investigation of the facts, including the causes and background. We have since implemented appropriate countermeasures based on the results. Strict compliance is a top priority for our management, and we have taken it upon ourselves to examine the current situation with regard to compliance in every area of our business. When issues do arise, we

take appropriate measures, and we are committed to promoting and enforcing compliance and awareness thereof in all operational areas.

\*Click here for more information on nonconforming final vehicle inspections.

#### Executing an Overhaul of Compliance Checks

At Nissan, following the discovery of nonconformities in the final vehicle inspection process at vehicle assembly plants in Japan, we were determined to ensure that such a thing could never happen again. Accordingly, in fiscal 2018, we carried out an overhaul of compliance checks. Legal professionals worked with the departments responsible to identify the laws and regulations that we must obey in each area of operations. A list was created of the laws and regulations thus identified, and the situation with respect to compliance was confirmed by the responsible departments based on check sheets created by an audit company. Additionally, instead of treating these overhauled compliance checks as a one-time project with a definite ending, we are building a robust system for regular monitoring of compliance.

In the future, comprehensive compliance checks will be undertaken at affiliated companies in Japan and overseas, and our compliance framework will be strengthened to give us visibility into legal compliance on a global level.

## Anti-Bribery

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#### 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\* establishes a global framework for preventing and responding to corruption. 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.

### Anti-Bribery: Management

Nissan has established a Global Code of Conduct\* and Global Risk & Compliance Office as well as departments and officers at each of its operations worldwide with responsibility for 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 ensure full understanding of its content.

Nissan's 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 able 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.

Employee education programs to promote compliance are held regularly in all regions in which Nissan operates. For example, training sessions based on the Global Anti-Bribery Policy have been conducted in all regions.

Moreover, in fiscal 2018, one instance of potential bribery was discovered by the Global Compliance Office. Following investigations and on the advice of outside legal counsel, the instance was reported to the appropriate authorities. Disciplinary action has been taken against those involved.

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

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## **Business Ethics**

### Business Ethics: Policies and Philosophy

#### **Employees and Compliance**

Nissan's sustainability efforts are based on each employee's ability to do his or her job with a high level of integrity. In 2001, we established a Global Code of Conduct containing practical guidance for employees. Today this Code of Conduct is applied at all Nissan Group companies worldwide. We also provide guidance on compliance for directors and corporate officers, holding regular seminars and educational activities to ensure strict adherence to the rules.

Under the oversight of our Global Compliance Committee, we have established a Regional Compliance Committee in each region of operation, forming a worldwide system for detecting and deterring illegal and unethical behavior. Global Headquarters works with all regions and bases of operation to ensure full awareness of compliance issues and prevent illegal activity, and has processes in place to take appropriate disciplinary action against those who violate or infringe the Global Code of Conduct or the law. Our Global Risk & Compliance Office further increases the rigor of our compliance management. In addition, to enhance compliance at the regional level, stand-alone, independent, regional compliance officers have been hired in the Japan, Asia and Oceania (A&O), China, North America, Latin America and the Caribbean (LATAM), Europe and Africa and Middle East and India (AMI) regions.

Fiscal 2018 Global Compliance Committee Organization (As of June 25, 2019)



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

#### Global Code of Conduct

Nissan's Global Code of Conduct contains our core principles for doing business with honesty and integrity, in full compliance with established laws and regulations in all locations in which we operate. The Code of Conduct's standards apply to all employees within Nissan Group companies, and every employee is responsible for upholding and adhering to the Code. The Code of Conduct is reviewed for revision at least once every three years to ensure that it evolves along with the company and society. The Code is also updated promptly, outside the regular review cycle, in response to significant changes to laws or other major factors affecting it. The Code of Conduct was most recently updated in 2017, when employee and customer safety were proactively added as a new key pillar of the Code. During fiscal 2018, executive messages regarding the Global Code of Conduct were delivered to employees through our intranet, covering areas of transparency and speak-up culture, and overall compliance.

In fiscal 2018, new global Code of Conduct training was launched in all regions. Materials for indirect employees were distributed via a specially developed e-learning platform. The e-learning training platform was accessible in number of formats including via portable devices like smartphones and tablets. The e-learning material was available in 19 languages. Factory-focused training material was prepared for factory workers, who received the training via regular shiftstart messaging or in a seminar setting. This global Code of Conduct training is mandatory for all Nissan employees every year as well as Board members and Corporate Officers.

#### ① Comply 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.

#### ② Promote 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.

#### ③ Avoid 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.

#### ④ 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.

#### ⑦ Value 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.

#### **8** 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.

#### 9 Be Active; Report Violations

Nissan employees are expected to carry out their work in accordance with the Code of Conduct. Employees who suspect that a violation of the Code of Conduct has occurred are obligated to report it as soon as possible. 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.

## Business Ethics: Management

#### Internal Reporting System for Corporate Soundness

Nissan has established a globally integrated reporting system to promote thorough understanding of compliance among employees worldwide and facilitate sound business practices. The system, known as "SpeakUp," can be used by employees to ask questions or voice concerns to the company, thereby improving workplaces and operations. Where allowed by law, SpeakUp permits 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 our non-retaliation policy, a cornerstone of our compliance program.

In fiscal 2018, 1,585 issues and questions were reported globally. Among those, 780 compliancerelated matters were identified. The number of reporting has been increased since SpeakUp was introduced. This trend is as expected, and indicates both that our compliance program is working effectively and that employees are taking an interest in using it to raise their concerns.

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## Security-Related Export Controls

To help maintain both national and international peace and security, we rigorously comply with export control laws and regulations in Japan and other countries and regions where we operate to keep sensitive goods and technologies from reaching sponsors of terrorism, espionage or human rights violations. Our export controls are implemented under a system headed by the representative executive responsible for export control. Specifically, our Export Control Global Secretariat works with each of our businesses to set control and monitoring mechanisms ensuring compliance with security-related export controls, and these mechanisms are strictly applied to all operations. We recognize our responsibility for compliance with all regulations related to export controls on goods, software and technologies in our areas of operation. In 2017, we formulated a Global Export Regulatory Compliance Policy to ensure proper compliance with such regulations across the Nissan Group. Based on this global policy, we are working to develop local policies for each of the different countries and regions where we operate, such as national trade and export regulatory compliance policies issued in fiscal 2018 for Turkey, and to establish export control structures. We also respond in a timely manner to export control regulation changes and related developments around the world,

including the enforcement of the Export Control Reform Act (ECRA) in the U.S., amendments to the EU export control list and moves to strengthen export control regulations in China, Thailand, India and the Philippines.

With the overall aim of improving our level of internal control, we strive to conduct regular riskassessment activities in connection with export controls in each region, create monitoring mechanisms aligned with regulatory requirements and business demands, and continually improve our operations. To make employees more familiar with compliance risks, we are reviewing our training system and materials, including information about complying with relevant customs and trade laws. From fiscal 2018, we began training in Japan based on the new system, and we intend to extend this training globally starting in fiscal 2019.

We have been addressing export control of advanced technology on a global level to prepare for the future of our company. To hasten the implementation of our Global Export Regulatory Compliance Policy, we continue to promote export control for advanced technologies, such as autonomous driving and connected-car technologies, at Nissan sites in Silicon Valley and elsewhere around the world. At our development sites in Japan, we are improving our classification process for sensitive goods, software and technologies using IT systems. By making export control procedures an integral part of our development and design operations, we aim to strengthen our compliance. In addition, we are renewing and collecting information on controlled goods and technologies in each region and are implementing comprehensive and sound export controls for each business operation through the systematic global sharing of this information.

Global Export Control Policy Framework





## Nissan's Commitment to Tax Transparency

Based on its Global Code of Conduct, Nissan is committed to complying with the laws and regulations of all countries in which it operates, as well as with international tax treaties and tax-related financial reporting rules. Nissan is consistently fulfilling a number of tax disclosure requirements such as OECD Country-by-Country Reporting and other mandatory country-specific transparency requirements like in Australia or the United Kingdom.\*

Nissan applies established international standards like OECD principles to its dealings between the companies within the group. Intercompany transactions are priced on an arm's-length basis, which means that Nissan-related entities trade with each other as if they were unrelated.

Nissan is transparent about its approach to tax. Nissan aims to pay the appropriate amount of taxes in the jurisdictions in which it operates, and to avoid tax-related interests and penalties for failure to comply.

\*Click here for information on Nissan's U.K. tax strategy.

Nissan effectively manages tax risks within the Group by participating in and—through the delegation of authority process at a global, regional and local level—validating key business decisions from a tax perspective in a consistent manner.

Nissan seeks to maintain a long-term, open and constructive relationship with national tax authorities by proactively engaging with them, as well as other governmental and relevant industry bodies directly and indirectly.

# ESG DATA

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## Corporate Overview

Corporate Profile V

Financial Data 💙

Global Sales Volume and Production Volume 💙



## 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 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, 2019)	138,893
	R&D: 16 markets (Japan, U.S., Mexico, U.K., Spain, Belgium, Germany, Russia, China, Taiwan, Thailand, Indonesia, South Africa, Brazil, India, Vietnam; total of 45 sites)
Global Network (as of March 31, 2019)	Design: 7 markets (Japan, U.S., U.K., China, Brazil, Thailand, India; total of 8 sites)
	Automobile Production: 35 bases in 18 markets (excludes plants providing OEM vehicles to Nissan [Renault, Mitsubishi Motors, Fuso, Suzuki, etc.].)

## **Financial Data**

#### (¥ billion)

	FY2016	FY2017	FY2018
Net sales	11,720.0	11,951.2	11,574.2
Operating income	742.2	574.8	318.2
Ordinary income	864.7	750.3	546.5
Profit before tax	965.2	710.7	477.7
Net income attributable to owners of the parent	663.5	746.9	319.1
Capital expenditure	469.3	485.4	509.9
Depreciation	380.8	384.2	377.8
Research and development costs	490.4	495.8	523.1

> Click here for more information on Financial Data.

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## Global Sales Volume and Production Volume

(Thousand units)

	FY2016	FY2017	FY2018
Global sales volume	5,626	5,770	5,516
Japan	557	584	596
China	1,355	1,520	1,564
North America	2,130	2,091	1,897
Europe	776	756	643
Others	808	819	816

	FY2016	FY2017	FY2018
Global production volume	5,654	5,672	5,362
Japan	1,015	986	901
North America	1,855	1,694	1,587
Europe	730	777	661
Others	2,054	2,215	2,213

Click here for more information on Financial Data.





# **Environmental Data**

Climate Change (Products) V

Climate Change (Corporate Activities) V

Air Quality 💙

Resource Dependency: Achievements in Reuse 💙

Resource Dependency (Facility Waste) 💙

Water Resource Management 💙

Strengthening Our Business Foundations to Address Environmental Issues  $\checkmark$ 

Material Balance 💙

Environmental Conservation Cost V

GRI302-5

## Climate Change (Products)

# (%) 100 **100**

CO2 Emissions from New Vehicles (Global)\*



In fiscal 2018, CO2 emissions in Nissan's main markets of Japan, the U.S., Europe and China were 33.0% lower than fiscal 2000 levels, as measured by Corporate Average Fuel Economy (CAFE). This was a slight regression from fiscal 2017 due to changes in the powertrain sales mix in the EU.

\*Reduction in CO2 emissions calculated by Nissan.

## Corporate Average Fuel Economy (CAFE, JC08 Mode) in Japan



In fiscal 2018, mainly due to strong sales of the Serena e-POWER, average fuel economy improved to 21.2 km/L in JC08 mode. This represents an improvement of 3% compared to fiscal 2017. Provisional values determined by Nissan are used.

### Corporate Average Fuel Economy (CAFE) in the United States



In fiscal 2018, sales resulted in a CAFE of 39.8 mpg for passenger cars, the same performance observed for fiscal 2017. In the light-duty truck segment, comparatively heavier models sold well, worsening the CAFE from 29.1 mpg to 28.5 mpg.

## CO2 Emission Index from Nissan Vehicles in Europe



In 2018, there has been a substantial decrease in sales of diesel fuel vehicles, which resulted in average CO<sub>2</sub> emissions at the same level as 2017.

## Corporate Average Fuel Economy in China



In 2018, fuel economy for domestically produced and imported vehicles improved approximately 5% and 2%, respectively. The incremental introduction of EVs is the main factor for domestic production improvements, whereas a profile of lighter models contributed to the imported vehicles results.

## Revenue, Global Sales Volume and Production Volume Data

	FY2017	FY2018
Revenue*1	13,315.0	12,968.7

#### (k unit)

(¥ billion)

	FY2017	FY2018
Global Sales Volume* <sup>2</sup>	5,770	5,516
Japan	584	596
North America	2,091	1,897
Europe	756	643
Asia	1,851	1,888
Other	488	492

#### (k unit)

	FY2017	FY2018
Global Production Volume*2	5,672	5,362
Japan	986	901
North America*3	1,694	1,587
Europe*4	777	661
Asia*5	2,070	2,046
Other*6	145	167

\*1 Management pro-forma basis (includes Chinese joint ventures in proportionate consolidation).

\*2 Global sales volume and global production volume for China and Taiwan consider values from January to December.

- $\ast 3\,$  Production in the U.S. and Mexico.
- \*4 Production in the U.K., Spain, Russia and France.
- \*5 Production in Taiwan, Thailand, Philippines, Indonesia, China, India and South Korea.
- \*6 Production in South Africa, Brazil, Egypt and Argentina.
# Powertrain Type Ratios (Shipment-Based)

	Unit	Gasoline- powered vehicles	Diesel- powered vehicles	e-POWER vehicles	Electric vehicles	Hybrid drive vehicles	Natural-gas drive vehicles
Japan	%	63.1	1.0	21.7	3.1	11.4	0.1
North America	%	98.7	0.1	0.0	1.0	0.2	0.0
Europe	%	58.9	33.5	0.0	7.5	0.1	0.0
Other	%	94.1	5.4	0.0	0.0	0.4	0.0
Global	%	89.2	5.0	2.5	1.6	1.6	0.0

#### EVs



\*Includes the sale of EVs by joint ventures in China.

#### Hybrids



(k unit)



#### The Xtronic Transmission

#### ICE with CVT\* Sales



In fiscal 2018, we sold 3.1 million additional Xtronic vehicles, bringing the cumulative total to 27 million.

\*CVT: Continuously Variable Transmission

GRI305-1 GRI305-2 GRI305-4

GRI305-5

# Climate Change (Corporate Activities)

#### Energy Input

	Unit	2014	2015	2016	2017	2018
Total	MWh	9,474,368	9,683,528	10,189,082	9,532,840	9,252,737
Japan	MWh	4,191,517	4,115,353	4,497,562	4,084,912	3,700,532
North America	MWh	2,424,942	2,583,613	2,643,303	2,452,299	2,570,438
Europe	MWh	1,156,519	1,107,279	1,093,103	1,126,186	1,048,201
Other	MWh	1,701,391	1,877,283	1,955,115	1,869,443	1,933,566
Primary			'			
Natural gas	MWh	3,060,122	3,346,141	3,537,674	3,701,640	3,579,998
LPG	MWh	295,800	303,826	249,426	179,945	191,405
Coke	MWh	199,801	206,307	217,431	218,618	200,527
Heating oil	MWh	225,114	188,943	209,232	147,522	113,200
Gasoline	MWh	322,624	302,564	303,040	299,000	259,045
Diesel	MWh	99,045	55,099	57,488	48,259	53,074
Heavy oil	MWh	58,274	34,289	43,853	27,652	15,995
External						
Electricity (purchased)	MWh	5,084,989	4,979,114	5,247,663	4,755,897	4,711,467
Renewable energy*1	MWh	154,515	141,076	157,226	133,212	135,574
Chilled water	MWh	4,239	12,116	12,919	6,661	7,487
Heated water	MWh	4,635	4,630	4,690	5,000	5,000
Steam	MWh	110,953	100,000	136,593	128,038	102,324

Internal						
Electricity (in-house generation)	MWh	8,772	9,423	11,847	14,609	13,214
Renewable energy*2	MWh	8,772	9,423	11,847	14,609	13,214
Total renewable energy	MWh	163,287	150,499	169,073	147,821	148,788

\*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.

### Global Energy Consumption



The total energy consumption of our global corporate activities during fiscal 2018 was about 9.253 million MWh, a 3% decrease from fiscal 2017. This reduction was primarily due to the promotion of energy-saving activities at facilities and a decline in total production volume. Production sites globally accounted for 8.161 million MWh\* of total energy consumption.

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

(FY)

#### Energy per Vehicle Produced



In fiscal 2018, energy per vehicle produced was 1.73 MWh increased by 2.7% compared to fiscal 2017.

Data for the Japan region includes the manufacture of powertrains and other components for overseas assembly. Since the denominator is vehicles produced in the region, this tends to result in higher values for Japan.

By region	Unit	2018
Japan	MWh/vehicle	4.99
North America	MWh/vehicle	1.67
Europe	MWh/vehicle	1.65
Other	MWh/vehicle	0.87

(FY)

# Energy per Revenue



In fiscal 2018, global Nissan facilities saw energy per revenue result of 0.71 MWh, a similar result compared to the previous fiscal year. We are taking ongoing steps toward decoupling financial capital generation from energy use.

### Carbon Footprint

	Unit	2014	2015	2016	2017	2018
Scope 1	t-CO2	861,457	926,790	963,661	912,476	889,444
Scope 2	t-CO2	2,422,410	2,547,951	2,614,028	2,394,109	2,339,883
Scope 1+2	t-CO2	3,283,867	3,474,741	3,577,689	3,306,584	3,229,327
Japan	t-CO2	1,267,676	1,479,572	1,579,089	1,333,335	1,208,303
North America	t-CO2	769,696	800,724	823,340	683,332	738,234
Europe	t-CO2	290,109	208,088	176,285	228,998	221,692
Other	t-CO2	956,386	986,359	998,976	1,060,920	1,061,098
Scope 3	t-CO2	143,678,000	144,145,000	150,462,000	213,715,000	203,106,900

In fiscal 2018, the total of Scope 1 and 2 emissions was 3.229 million tons. Total CO2 emissions from manufacturing processes were 2.610 million tons (Scope 1 emissions: 0.759 million tons; Scope 2 emissions: 1.850 million tons).\*

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

# Corporate Carbon Footprint per Vehicle Sold



In fiscal 2018, overall corporate emissions were reduced by 31.4% compared to fiscal 2005, representing steady progress toward our fiscal 2022 goal.

# Carbon Footprint of Manufacturing Activities



# Manufacturing CO2 per Vehicle Produced



In fiscal 2018, our manufacturing CO<sub>2</sub> emissions per vehicle produced were 0.49 tons, 33.7% less than fiscal 2005.

#### Scope 1 and 2 Emissions per Revenue



In fiscal 2018, CO<sub>2</sub> emissions from our global operations were 0.22 ton per ¥1 million of revenue.

#### Logistics Volume

	Unit	2014	2015	2016	2017	2018
Total	mil ton-km	35,243	35,546	39,930	35,635	34,903
Inbound	mil ton-km	11,578	11,221	10,634	9,699	10,164
Outbound	mil ton-km	23,665	24,325	29,296	25,935	24,739
Sea	%	62.0	60.1	60.9	57.6	60.9
Road	%	25.0	26.5	24.8	25.9	23.3
Rail	%	12.5	13.0	14.0	16.1	14.9
Air	%	0.5	0.3	0.4	0.4	0.9

In fiscal 2018, global shipping decreased by around 2% compared to the previous fiscal year, to 34,900 million ton-km. We continue to strengthen our 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)

## CO2 Emissions from Logistics

	Unit	2014	2015	2016	2017	2018
Total	t-CO2	1,608,582	1,598,891	1,925,281	1,567,248	1,482,982
Inbound*	t-CO2	822,867	797,034	809,088	739,610	762,314
Outbound*	t-CO2	785,715	801,857	1,116,193	827,638	720,667
Sea	%	18.5	18.3	17.8	20.0	19.9
Road	%	60.5	65.7	62.1	64.6	60.3
Rail	%	5.1	5.4	5.6	7.0	6.7
Air	%	15.9	10.6	14.5	8.4	13.1

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

In fiscal 2018, CO<sub>2</sub> emissions from logistics were 1,482,982 tons, down approximately 5.4% from the previous fiscal year. A substantial contribution to the reduction of overall CO<sub>2</sub> emissions was made by decreasing our reliance on trucks for the transport of complete vehicles.

#### CO2 Emissions per Vehicle Transported



In fiscal 2018, CO<sub>2</sub> emissions per vehicle transported were 0.37 tons, an improvement over the previous fiscal year.

261/323

(FY)

(FY)

#### Scope 3 Emissions by Category

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

Category	Unit	2018
1.Purchased goods & services	kt-CO2	17,476
2.Capital goods	kt-CO2	1,182
3.Fuel- and energy-related activities	kt-CO2	401
4.Upstream transportation & distribution	kt-CO2	762
5.Waste generated in operations	kt-CO2	192
6.Business travel	kt-CO2	230
7.Employee commuting	kt-CO2	248*
8.Upstream leased assets	kt-CO2	0
9. Downstream transportation & distribution	kt-CO2	850
10.Processing of sold products	kt-CO2	9
11.Use of sold products	kt-CO2	180,882*
12.End-of-life treatment of sold products	kt-CO2	413
13.Downstream leased assets	kt-CO2	462
14.Franchises	kt-CO2	0
15.Investments	kt-CO2	0
Total		203,106

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

# Carbon Credit

Nissan Motor Iberica, S.A. in Barcelona and Cantabria, Spain, entered EU-ETS, and the verified allowance earned for fiscal 2018 was 42,787 tons.

## Employee Commuting CO2 Emissions



In fiscal 2013, Nissan introduced a companywide CO2 reduction plan for car commuting employees in Japan. This plan encourages car commuters to shift from internal combustion engine vehicles to electric vehicles. For fiscal 2018, CO2 emissions from car commuting in Japan were approximately 33 kton\*, or 2.7 ton-CO2/vehicle annually.

\*Calculated by using the parameters below together with vehicle homologation data:

- Average car commuting range (Japan): 9,227 km/vehicle-year
- CO2 emission factor for gasoline-powered vehicles (National Greenhouse Gas Inventory Report of Japan [2009]): 0.33 kg-CO2 e/km
- CO2 emission factor for electricity (Tokyo Electric Power Company [FY2016]): 0.000462 t-CO2/kWh
- Employees of Nissan offices and manufacturing plants in Japan, fiscal 2018

# Air Quality

In fiscal 2018, NOx and SOx emissions from Nissan facilities in Japan were 418 tons and 34 tons respectively. In fiscal 2017, an increase in NOx emissions was due to longer operation time for plant cogeneration units, but substantial reductions in operation times were observed in fiscal 2018.

GRI305-7

(FY)

(FY)

	Unit	2014	2015	2016	2017	2018
NOx	ton	453	450	430	619	418
SOx	ton	40	37	31	36	34

# Volatile Organic Compounds (VOCs)

In fiscal 2018, VOCs from manufacturing plants were 10,166 tons globally, a reduction from fiscal 2017. We actively continue to promote activities to reduce VOCs, such as switching to materials including water-based paints.

	Unit	2014	2015	2016	2017	2018
Total	ton	11,316	10,820	11,933	11,152	10,166
Japan	ton	2,826	2,850	3,580	3,232	2,188
North America	ton	5,511	5,309	4,851	4,284	3,847
Europe	ton	2,979	2,661	3,502	3,636	4,130

## VOCs per Vehicle Produced



In fiscal 2018, VOCs per vehicle produced were 1.90 kg, a 3.6% decrease from fiscal 2017.

(FY)

By region	Unit	2018
Japan	kg/vehicle	2.43
North America	kg/vehicle	2.42
Europe	kg/vehicle	6.25

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

In fiscal 2017, released substances designated by the PRTR (Pollutant Release and Transfer Register) Law in Japan were 4,422 tons, a slight decrease from fiscal 2016.

	Unit	2013	2014	2015	2016	2017
Japan site total	ton	4,183	3,879	4,129	4,472	4,422
Oppama	ton	676	402	488	872	796
Tochigi	ton	1,155	1,317	1,435	1,179	920
Kyushu	ton	1,300	1,152	1,173	1,406	1,697
Yokohama	ton	579	547	531	545	559
Iwaki	ton	128	114	132	144	62
NTC	ton	347	347	370	325	388

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



PRTR Emissions per Vehicle Produced (Japan)

In fiscal 2017, PRTR emissions per vehicle produced in Japan were 4.91 kg, an increase from fiscal 2016.

(FY)

#### GRI301-2 GRI301-3

# Resource Dependency: Achievements in Reuse

#### (Substances) 4,043 3.912 4,000 3,216 3,216 3,500 2,897 3,000 2,500 2.000 1,500 1,000 2014 2015 2016 2017 2018 (FY)

Nissan revised its standard for the assessment of hazards and risks in the Renault-Nissan Alliance, actively applying restrictions to substances not yet covered by regulations but increasingly subject to consideration around the world. As a result, the number of substances covered by the Nissan Engineering Standard in fiscal 2018 rose to 4,043. These steps are thought to be necessary for future efforts in the repair, reuse, remanufacture and recycle loop for resources.

\*Click here for more information on chemical substances governance.

#### Recycled Plastic Usage in Vehicle

We are making efforts to expand the use of recycled plastic in our vehicles, as well as developing technologies for this. Recycled plastic use in fiscal 2018 was 11%, based on the rate achieved by our best-selling model in Europe.

#### Automotive Shredder Residue to Landfill Ratio

After removing ferrous and nonferrous metals from ELVs, in accordance with the End-of-Life Vehicle Recycling Law in Japan, the ratio of ASR taken to landfills for final disposal was zero in fiscal 2018. This was achieved by enhancing recycling capability through the acquisition of additional facilities that comply with the law.

# (Substances) Nissan revised its

#### Material Ratio

In 2018, ferrous metals accounted for 61% of the materials used in our automobiles by weight. Nonferrous metals made up another 15% and resins 14%, with miscellaneous materials making up the final 10%. To further reduce our use of natural resources, we are advancing initiatives to expand the use of recycled materials in each of these categories.

#### **Recovered Bumpers**



# Resource Dependency (Facility Waste)

#### Waste

For fiscal 2018, waste generated totaled approximately 206,645 tons. From fiscal 2018, the boundary of waste data covered by third-party assurance has been expanded globally, which resulted in an increase in the number of reporting sites. Waste generated globally from production sites in fiscal 2018 was 189,282 tons.\*

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

(FY)

	Unit	2014	2015	2016	2017	2018		
Total	ton	173,513	159,345	158,939	152,674	206,645		
By region								
Japan	ton	59,808	63,630	61,115	61,327	69,829		
North America	ton	58,452	49,129	45,459	35,177	64,514		
Europe	ton	45,358	37,204	41,110	45,268	49,662		
Other	ton	9,895	9,382	11,255	10,903	22,639		

By treatment method						
Waste for disposal	ton	13,153	11,355	8,707	8,041	7,231
Recycled	ton	160,360	147,990	150,231	144,633	199,414

#### Waste per Vehicle Produced



In fiscal 2018, since the boundary of waste data covered has been expanded, waste per vehicle produced increased to 38.54kg.

(FY)

	Unit	2018
Japan	kg/vehicle	77.50
North America	kg/vehicle	40.65
Europe	kg/vehicle	75.13
Other	kg/vehicle	10.23

GRI306-2

### Waste for Disposal per Vehicle Produced



In fiscal 2018, we reduced the volume of waste for disposal to a total of 1.35 kg per vehicle produced, a 4.9% reduction from fiscal 2017. This was mainly due to waste-reduction efforts at manufacturing plants in the United States.

# Water Resource Management



(FY)

#### Water Input for Corporate Activities

In fiscal 2018, water input for corporate activities was 26,420,000 m<sup>3</sup>, a 1% increase compared with the fiscal 2017 level. Water input from production sites was 25,093,377 m<sup>3</sup>.\*

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

	Unit	2014	2015	2016	2017	2018
Total	1,000 m³	29,162	28,570	29,118	26,197	26,420
Japan	1,000 m³	15,018	14,990	15,563	13,115	13,022
North America	1,000 m³	5,419	5,427	5,483	4,905	4,930
Europe	1,000 m³	2,310	2,330	2,299	2,155	2,093
Other	1,000 m³	6,415	5,823	5,774	6,023	6,376

## Cleaner Effluent Through Wastewater Treatment

Nissan thoroughly processes and is promoting activities to reduce wastewater at its various plants.

						(FY
	Unit	2014	2015	2016	2017	2018
Total	1,000 m³	20,938	20,680	20,516	17,410	17,345
Japan	1,000 m³	13,358	12,976	12,681	10,376	10,472
North America	1,000 m³	3,550	3,916	4,028	3,382	3,190
Europe	1,000 m³	1,793	1,740	1,767	1,564	1,539
Other	1,000 m³	2,237	2,048	2,040	2,088	2,143
	·					

Quality						
Chemical oxygen demand (COD) Japan only	kg	27,883	28,042	29,730	26,451	21,149

#### Water Discharge from Corporate Activities (Per Vehicle Produced)



In fiscal 2018, water discharge per vehicle produced was 3.23 m<sup>3</sup>, which was a 5.2% increase compared to fiscal 2017.

(FY)

By region	Unit	2018
Japan	m³/vehicle	11.62
North America	m³/vehicle	2.01
Europe	m³/vehicle	2.33
Other	m³/vehicle	0.97

Data for the Japan region includes the manufacture of powertrains and other components for overseas assembly. Since the denominator is vehicles produced in the region, this tends to result in higher values for Japan.

# Strengthening Our Business Foundations to Address Environmental Issues

#### Global Top Selling Model's Lifecycle Improvements

We have been expanding the application of the LCA method and enhancing the understanding of the environmental impact of our products in quantitative terms, especially our best-selling models worldwide. LCAs have been conducted for over 90% of these models.

LCA Conducted Product Ratio in Sales Volume (EU Market)



With the Altima and Rogue, for example, improvements in internal combustion engine efficiency and vehicle weight reduction have led to both enhanced safety features and lower CO<sub>2</sub> emissions.



Lifecycle CO<sub>2</sub> Equivalent Emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.)

# LCA Comparison for e-POWER Models

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 have achieved 18%–27% reductions in CO<sub>2</sub> emissions.



#### Lifecycle CO2 Equivalent Emissions (CO2, CH4, N20, etc.)

# LCA Comparison for the New Nissan LEAF

Compared to conventional vehicles of the same class in Japan, the Nissan LEAF results in approximately 32% lower CO<sub>2</sub> emissions during its lifecycle. We are making efforts to reduce CO<sub>2</sub> emissions during EV production by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials.



Lifecycle CO2 Equivalent Emissions (CO2, CH4, N20, etc.)

# Lifecycle Improvements Beyond Climate Change

#### Emissions Improvement in the New Serena e-POWER over Its Lifecycle



Nissan is expanding the scope of LCAs to include not just greenhouse gases but also a variety of chemicals amid growing societal concerns over air quality and ocean acidification and eutrophication. Our calculations show that, compared to conventional gasoline engines, the Serena e-POWER is significantly more environmentally friendly, achieving 11%–27% emission reductions for all targeted chemical substances and achieving environmental benefits throughout its lifecycle.

Conventional
e-POWER

Production in Japan, 100,000 km driven in Japan.

GRI301-1	GRI302-1	GRI303-1	GRI305-1	GRI305-2	GRI305-7	GRI306-1	GRI306-2
<u>-</u>							

# Material Balance

# Input

(FY)

(FY)

	Unit	2018
Raw materials	ton	7,056,924
Energy	MWh	9,252,737
Renewable energy	MWh	148,788
Water withdrawal	1,000 m³	26,420

# Output

	Unit	2018
Vehicles produced		
Global production volume	k unit	5,362
CO2 emissions	t-CO2	3,229,327
Water discharge	1,000 m³	17,345
Emissions		
NOx	ton	418
SOx	ton	34
VOC	ton	10,166
Waste		
For recycling	ton	199,414
For final disposal	ton	7,231

# **Environmental Conservation Cost**

					(FY)	
	Unit	20		2018		
		Investment	Cost	Investment	Cost	
Total	mil ¥	4,665	173,686	3,790	171,245	
Business area	mil ¥	32	1,638	20	1,775	
Upstream/downstream	mil ¥	0	552	0	706	
Management	mil ¥	0	6,776	0	8,041	
R&D	mil ¥	4,633	164,240	3,770	160,263	
Social activities	mil ¥	0	297	0	308	
Damage repairs	mil ¥	0	183	0	153	

(FY)

	Unit	2017	2018
Total	mil ¥	7,316	8,262
Cost reduction	mil ¥	468	372
Profit	mil ¥	6,848	7,890

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

# Social Data

Employee Data 💙

Diversity and Inclusion  $\checkmark$ 

Traffic Safety 💙

Human Resource Development 💙

Contributing to Local Communities V

GRI102-7 GRI102-8 GRI102-22 GRI102-41 GRI402-1 GRI405-1 GRI405-2

# Employee Data

				(FY)		
		2016	2017	2018		
Nissan Motor Co., Ltd.						
Number of employees		22,209	22,272	22,791		
	Male	19,971	19,908	20,269		
	Female	2,238	2,364	2,522		
		42.8	42.5	41.8		
Average age (years)	Male	43.3	43.0	42		
	Female	38.1	38.1	38.2		
Average length of service (years)		20.2	19.4	18.4		
	Male	20.8	20.0	18.9		
	Female	14.5	14.2	14.3		
Employee turnover rate (%)*1		4.3	5.4	6.2		
	Voluntary leave	0.9	1.3	2.0		
Average annual salary (yen)*2		8,164,762	8,184,466	8,154,953		
Disabled employment ratio (%)		2.07	2.08	2.3		
Number of employees taking parental leave		303	255	380		
	Male	15	29	40		
	Female	288	226	340		
Male employee parental leave acquisition rate (%)*3		2	4	6		
Ratio of returnees from parental leave (%)		96.9	95.2	97.3		
	Male	100	100	100		
	Female	96.6	94.5	96.7		

		11	13	6
Number of employees taking nursing care leave	Male	5	8	4
	Female	6	5	2
Days of paid holiday taken		19.0	19.0	19.0
Taken paid holiday ratio (%)		96	97	97
Average overtime hours/month		21.4	22.1	23.9
Number of unionized employees*4		25,630	25,377	25,789
Number of female managers		279	314	320
	Ratio (%)	10.1	10.7	10.4
- Female general and higher-level managers		76	82	79
	Ratio (%)	8.1	8.2	7.6
Number of female corporate officers		2	2	2
	Ratio (%)	4.2	3.8	4.1
Number of female board members		0	0	1
	Ratio (%)	-	-	12.5
		0	0	0
- Female board members (internal)	Ratio (%)	-	-	-
- Female board members (external)		0	0	1
	Ratio (%)	-	-	33.3
Number of female auditors		0	0	0
Number of female auditors	Ratio (%)	-	-	-
Number of new graduates hired		576	684	815
	Male	453	558	651
	Female	123	126	164

- \*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.

(FY)

#### Consolidated Basis

			()
	2016	2017	2018
Consolidated			
Consolidated number of employees*	137,250 (19,366)	138,910 (19,924)	138,893 (19,240)
Japan	59,441	59,431	58,966
North America	35,951	36,080	36,594
Europe	16,065	16,807	16,119
Asia	20,837	20,807	20,872
Other countries	4,956	5,785	6,342

\*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 25,789 including those of Nissan Motor Kyushu as of March 31, 2019. 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.



# **Diversity and Inclusion**

#### Ratio of Women in Management Positions



# Nissan's Awards for Diversity\*

Year	Award	Sponsor
2018	PRIDE Index: Gold Award	work with Pride
2017	PRIDE Index: Gold Award	work with Pride
2017	Perfect Score (100) in Corporate Equality Index (5th straight year)*1	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* <sup>2</sup>	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.)

\*In the United States, Nissan has also received awards other than those listed above.

\*1 ,\*2 Awarded to NNA.









女性が輝く 先進企業表彰
# Traffic Safety



#### Fatalities per 10,000 Nissan Vehicles

#### Key Achievements for Nissan Safety Technology

In January 2015, we 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 standard on all major models. In North America, it is now standard on several models including the Pathfinder, Altima and Rogue. In Europe, it is available on the Juke, X-Trail, Qashqai, Micra and other key models. The technology has been adopted for several new models launched in fiscal 2018, including the new Altima in North America, the Nissan LEAF e+, and the new Nissan Dayz in Japan.

Our vehicles have earned high safety ratings on many public and governmental tests held in various regions. In Japan, our 11 major models featuring the Intelligent Emergency Braking, including the Note and Serena, were approved under the Advanced Emergency Braking System certification launched by the Ministry of Land, Infrastructure, Transport and Tourism in fiscal 2018.

#### Major External Safety Ratings (Based on 2018 Assessments)

Regions	External	Assessments	Models	Rating
	JNCAP*1	Collision Safety Performance Assessment	(No assessments performed in fiscal 2018)	
Japan		Preventive Safety Performance Assessment	Dayz Roox, Note	ASV+++
		Automatic Accident Emergency Call System Assessment	Nissan Dayz	SOS+ (on- board type)
	NCAP*2		INFINITI QX60, QX50, Pathfinder, Murano	5★ Overall Rating (2019 model year)
U.S.			INFINITI QX80, Titan (Crew Cab), Armada, Frontier (Crew Cab), Rogue,*4 Rogue Sport, Sentra,*5 Versa (Sedan), Kicks	4★ Overall Rating (2019 model year)
	IIHS*3		Altima, Pathfinder,* <sup>6</sup> Kicks (vehicles equipped with LED headlights)	2019 Top Safety Pick
Europe	Euro NCAP		Nissan LEAF	5★
China	C-NCAP		Terra	5★
Southeast Asia	ASEAN NCAP		Terra	5★

- \*1 JNCAP: The Japan New Car Assessment Program. An automobile assessment program run by the Ministry of Land, Infrastructure, Transport and Tourism and the National Agency for Automotive Safety and Victims' Aid (NASVA).
- \*2 NCAP: The U.S. National Highway Traffic Safety Administration's New Car Assessment Program.
- \*3 IIHS: The U.S. Insurance Institute for Highway Safety.
- \*4 Except Rogue Hybrid.
- \*5 Except NISMO and SR Turbo.
- \*6 Vehicles manufactured after August 2018.

(FY)

### Human Resource Development

Training Program Achievements at Nissan Motor Co., Ltd.

			(11)
	2016	2017	2018
Number of trainees	120,219	171,949	241,674
Total hours in training	653,848	689,536	482,103
Hours per trainee	28.8	30.6	21.5
Trainee satisfaction (out of 5)	over 4.2	over 4.2	over 4.2
Investment per employee (¥)	71,000	73,000	86,000

GRI201-1 GRI203-2

# Contributing to Local Communities

#### Social Contribution Achievements in FY2018

Global social contributions (FY2018): ¥1.79 billion Social contributions include:

- Expenses for implementing philanthropic activities (excluding labor costs)
- Monetary donations and NPO membership fees for philanthropic purposes
- Cash equivalents of in-kind donations
- Sponsorship fees for philanthropic initiatives

#### Breakdown of FY2018 Social Contributions (Nissan Global)

	Philanthropic activities	Monetary donations	In-kind donations (cash equivalent)	Sponsorships, etc.	Total
Amount (¥ million)	412	847	270	255	1,785
% of total	23.1	47.5	15.1	14.3	100

	Disaster	Contribution in FY2018
	Torrential rains of July 2018 (Japan)	<ul> <li>¥10 million donation from Nissan Motor Co., Ltd. to the NGO Japan Platform.</li> <li>Donation from employees of Nissan Motor Co., Ltd. plus matching donation from the company to the Japanese Red Cross Society.</li> </ul>
	Torrential rains in and around the southern Indian state of Kerala (India)	• 7 million INR donation of disaster relief funds from Nissan Motors India (NMIPL) to the state government.
Donations for disaster relief	Eastern Iburi Earthquake in Hokkaido (Japan)	<ul> <li>¥5 million donation from Nissan Motor Co., Ltd. to the Japanese Red Cross Society.</li> <li>Two Nissan LEAF vehicles lent to the towns of Mukawa, Atsuma and Abira.</li> <li>Four thousand 500 mL bottles of drinking water provided.</li> </ul>
	Earthquake in Sulawesi (Indonesia)	<ul> <li>1 billion IDR donation from Nissan Motor Indonesia (NMI).</li> </ul>
	Sunda Strait Tsunami (Indonesia)	<ul> <li>Donation from employees of NMI plus a matching donation from the company of 10 times the amount raised.</li> </ul>

# Governance Data

GRI102-22 GRI405-1

# Overview of Corporate Governance (as of June 25, 2019)

Drganization form	Company with three statutory committees
Chairperson of the Board of Directors	Independent outside director
Number of directors	11
Number of independent outside directors	7
Number of female directors	2
Chairperson of the Nomination Committee	Independent outside director
Number of directors	6
Number of independent outside directors	5
Number of female directors	1
Chairperson of the Compensation Committee	Independent outside director
Number of directors	4
Number of independent outside directors	4
Number of female directors	2

Chairperson of the Audit Committee	Independent outside director
Number of directors	5
Number of independent outside directors	4
Number of female directors	1

> Click here for more information on Corporate Governance.



# SUSTAINABILITY REPORT 2019 EDITORIAL POLICY

Nissan publishes an annual Sustainability Report as a way of sharing information on its sustainabilityrelated 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 2018 in terms of three aspects (important sustainability topics): Environmental, Social and Governance, or "E," "S" and "G" for short. Report themes (important sustainability topics) 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.

GRI102-45 GRI102-50

#### Scope of the Report

Period Covered: The report covers fiscal 2018 (April 2018 to March 2019); 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.

GRI102-54

#### Referenced Reporting Guidelines

This report has been prepared in accordance with the GRI Standards: 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 2018, issued July 31, 2018.

Reporting Cycle

Annually since 2004

GRI102-56

GRI102-52

GRI102-51

#### Third-Party Assurance

Click here to view the third-party assurance.

GRI102-48

#### Forward-Looking Statements

This Sustainability Report contains forward-looking statements on Nissan's future plans and targets and related operating investment, product planning and production targets. There can be no assurance that these targets and plans will be achieved.

Achieving them will depend on many factors, including not only Nissan's activities and development but also the dynamics of the automobile industry worldwide, the global economy and changes in the global environment.

GRI102-53

#### For Further Information

Nissan Motor Co., Ltd. Sustainability Development Department Fax: +81(0)45-523-5731 Email: NISSAN\_SR@mail.nissan.co.jp

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NISSAN MOTOR CORPORATION SUSTAINABILITY REPORT 2019
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#### Sustainability Report 2019

Publication Date: September 30, 2019

#### Our Related Websites

CORPORATE INFO  $\checkmark$ 

SUSTAINABILITY  $\checkmark$ 

ENVIRONMENT 💙

SAFETY 💙

QUALITY 💙

CORPORATE CITIZENSHIP V

TECHNOLOGY 💙

ZERO EMISSION V

IR 💙

INFO LIBRARY 💙

PRODUCTS (GLOBAL) 💙

PRODUCTS (JAPAN) 💙

# 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 💉

- 1. Organizational Profile 💉
- 2. Strategy 🗸
- 3. Ethics and Integrity 💉
- 4. Governance 🗸
- 5. Stakeholder Engagement 💉
- 6. Reporting Practice 💉
- GRI 103: Management Approach 2016 🗸

#### Environmental / Social / Governance

Environmental 🗸

Social 🗸

Governance 🗸

Sep. 2019

# Universal Standards

#### GRI 102: General Disclosures 2016

#### 1. Organizational Profile

Topics	Core Topics	References	Reason for Omission / Explanation
102-1 Name of the organization	~	Outline of Company	
102-2 Activities, brands, products, and services	~	ESG Data: Corporate Overview	
102-3 Location of headquarters	✓	ESG Data: Corporate Overview	
102-4 Location of operations	~	Outline of Company (Facilities in Japan) Outline of Company (Overseas)	
102-5 Ownership and legal form	~	Outline of Company	
102-6 Markets served	~	ESG Data: Corporate Overview (Global Sales Volume and Production Volume)	
102-7 Scale of the organization	~	ESG Data: Corporate Overview (Corporate Profile, Financial Data, Global Sales Volume and Production Volume), Social Data (Employee Data)	
102-8 Information on employees and other workers	~	ESG Data: Social Data (Employee Data)	
102-9 Supply chain	~	Social: Supply Chain 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: Sustainability Strategy, Internal Efforts to Promote Sustainability Social: Community Engagement (Policies and Philosophy)	

102-12 External initiatives	~	Sustainability at Nissan: Sustainability Strategy Contribution to Sustainable Development Goals Environmental: Environmental Policies and Philosophy(Nissan's Understanding of Environmental Issues) Social: Labor Practices—Respecting the Rights of Workers (Policies and Philosophy)	
102-13 Membership of associations	~	The Alliance: World Business Council for Sustainable Development Membership Social: Labor Practices—Respecting the Rights of Workers (Policies and Philosophy on Respecting the Rights of Workers)	

#### 2. Strategy

Topics	Core Topics	References	Reason for Omission / Explanation
102-14 Statement from senior decision- maker	~	Message from Top Management Message from the Chief Sustainability Officer Reforming Corporate Governance	
102-15 Key impacts, risks, and opportunities		Sustainability at Nissan: Sustainability Strategy Reforming Corporate Governance Environmental: Environmental Policies and Philosophy (Nissan's Understanding of Environmental Issues) Social: Social Policies and Philosophy Governance: Governance Policies and Philosophy	

#### 3. Ethics and integrity

Topics	Core Topics	References	Reason for Omission / Explanation
102-16 Values, principles, standards, and norms of behavior	~	Sustainability at Nissan: Sustainability Strategy, Long-Term Vision and Goals for 2022 Environmental: Environmental Policies and Philosophy (Environmental Principles) Social: Human Rights (Human Rights Policy Satement) Governance: Governance Policies and Philosophy, Compliance (Business Ethics)	
102-17 Mechanisms for advice and concerns about ethics		Social: Human Rights (Human Rights Management) Governance: Compliance (Business Ethics)	

#### 4. Governance

Topics	Core Topics	References	Reason for Omission / Explanation
102-18 Governance structure	~	Governance: Corporate Governance System in Detail (Initiatives)	
102-19 Delegating authority		Message from the Chief Sustainability Officer Reforming Corporate Governance	
102-20 Executive-level responsibility for economic, Environmental, and social topics		Message from the Chief Sustainability Officer Environmental: Environmental Policies and Philosophy (Global Environmental Management Framework and Governance System)	
102-21 Consulting stakeholders on economic, Environmental, and social topics		Sustainability at Nissan: Stakeholder Engagement	
102-22 Composition of the highest governance body and its committees		Governance: Corporate Governance System in Detail (Initiatives) ESG Data: Social Data (Employee Data) , Governance Data	
102-23 Chair of the highest governance body		Reforming Corporate Governance Governance: Corporate Governance System in Detail (Initiatives)	
102-24 Nominating and selecting the highest governance body		Governance: Corporate Governance System in Detail (Initiatives) Corporate Governance Report: P.1	
102-25 Conflicts of interest		Governance: Corporate Governance (Avoidance of Conflict of Interest) Corporate Governance Report: P.1	
102-26 Role of highest governance body in setting purpose, values, and strategy		Sustainability at Nissan: Internal Efforts to Promote Sustainability	
102-27 Collective knowledge of highest governance body		Sustainability at Nissan: Internal Efforts to Promote Sustainability	
102-28 Evaluating the highest governance body's performance		Sustainability at Nissan: Internal Efforts to Promote Sustainability Reforming Corporate Governance Governance: Corporate Governance System in Detail (Initiatives)	

102-29 Identifying and managing economic, Environmental, and social impacts	Sustainability at Nissan: Managing the Advancement of Sustainability Environmental: Environmental Policies and Philosophy (Nissan's Steps to Address Environmental Issues, Key Issues and Challenges)	
102-30 Effectiveness of risk management processes	Governance: Risk Management (Risk Management Systems)	
102-31 Review of economic, Environmental, and social topics	Sustainability at Nissan: Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022 Environmental: Environmental Policies and Philosophy	
102-32 Highest governance body's role in sustainability reporting	Sustainability at Nissan: Internal Efforts to Promote Sustainability	
102-33 Communicating critical concerns	Governance: Risk Management (ESG Risk Management)	
102-35 Remuneration policies	Corporate Governance Report: P.2	
102-36 Process for determining remuneration	Corporate Governance Report: P.2	
102-37 Stakeholders' involvement in remuneration	Corporate Governance Report: P.2	

#### 5. Stakeholder engagement

Topics	Core Topics	References	Reason for Omission / Explanation
102-40 List of stakeholder groups	✓	Sustainability at Nissan: Stakeholder Engagement	
102-41 Collective bargaining agreements	~	ESG Data: Social Data (Employee Data)	
102-42 Identifying and selecting stakeholders	~	Sustainability at Nissan: Stakeholder Engagement	
102-43 Approach to stakeholder engagement	~	Sustainability at Nissan: Stakeholder Engagement	
102-44 Key topics and concerns raised	~	Sustainability at Nissan: Stakeholder Engagement	

#### 6. Reporting practice

Topics	Core Topics	References	Reason for Omission / Explanation
102-45 Entities included in the consolidated financial statements	~	Editorial Policy	
102-46 Defining report content and topic Boundaries	~	Sustainability at Nissan: Sustainability Strategy Editorial Policy	
102-47 List of material topics	~	Sustainability at Nissan: Sustainability Strategy (Key Themes for Sustainability) Long-Term Vision and Goals for 2022	
102-48 Restatements of information	~	Editorial Policy	
102-49 Changes in reporting	~	Not applicable	
102-50 Reporting period	✓	Editorial Policy	
102-51 Date of most recent report	✓	Editorial Policy	
102-52 Reporting cycle	✓	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	~	GRI Content index	
102-56 External assurance	✓	Third-Party Assurance	

# GRI103: Management Approach 2016

Topics	Core Topics	References	Reason for Omission / Explanation
103-1 Explanation of the material topic and its Boundary		Sustainability at Nissan: Sustainability Strategy Environmental: Environmental Policies and Philosophy (Nissan's Understanding of Environmental Issues), Climate Change (Toward a Carbon-Neutral Society, Product Initiatives (Policies and Philosophy for Product Initiatives), Corporate Activity Initiatives (Policies and Philosophy for Corporate Activity Initiatives)), Air Quality (Air Quality Policies and Philosophy), Resource Dependency (Resource Dependency Policies and Philosophy), Water Scarcity (Policies and Philosophy for Water Resource Management) Social: Social Policies and Philosophy, Human Rights (Human Rights Policies and Philosophy), Diversity and Inclusion (Diversity and Inclusion Policies and Philosophy, Diversity and Inclusion Management), Traffic Safety (Traffic Safety Policies and Philosophy), Product Safety and Quality (Product Safety and Quality Policies and Philosophy, Product Safety and Quality Management), Supply Chain Management (Supply Chain Strategy, Supply Chain Management Policies and Philosophy, Supply Chain Management, Action Against Conflict Minerals), Human Resource Development (Human Resource Development Policies and Philosophy), Labor Practices—Respecting the Rights of Workers (Policies and Philosophy on Respecting the Rights of Workers (Policies and Philosophy on Dialogue with Employees)), Employees' Health and Safety (Employees' Health and Safety Policies and Philosophy, Enployees' Health and Safety Policies and Philosophy, Enployees' Health and Safety Policies and Philosophy) Governance: Governance Policies and Philosophy	

	Sustainability at Nissan: Sustainability Strategy, Inte	ernal Efforts
	to Promote Sustainability, Long-Term Vision and Goa	
	2022, Managing the Advancement of Sustainability	
	Reforming Corporate Governance	
	Environmental: Environmental Policies and Philosoph	hy (Nissan's
	Steps to Address Environmental Issues) , Climate Cl	
	(Toward a Carbon-Neutral Society, Product Initiative	5
	and Philosophy for Product Initiatives, Management	
	Initiatives) , Corporate Activity Initiatives (Policies a	
	Philosophy for Corporate Activity Initiatives, Manage	
	Corporate Activity Initiatives, Corporate Activity Initiatives	
	Achievements) ) , Air Quality (Air Quality Policies an	
	Philosophy), Resource Dependency (Resource Depe	
	Policies and Philosophy, Resource Dependency Mana	
	Water Scarcity (Water Resource Management, Water	
	Achievements) , Strengthening our Business Founda	itions to
	Address Environmental Issues	
103-2	Social: Social Policies and Philosophy, Human Rights	
The management approach and its	Rights Management), Diversity and Inclusion (Diver	-
components	Inclusion Policies and Philosophy, Diversity and Inclu	
	Management), Traffic Safety (Traffic Safety Policies	
	Philosophy, Traffic Safety Management), Product Sa	-
	Quality (Product Safety and Quality Policies and Phile	
	Product Safety and Quality Management), Supply C	hain
	Management (Supply Chain Strategy, Supply Chain	
	Management Policies and Philosophy, Supply Chain	
	Management, Action Against Conflict Minerals), Hur	nan
	Resource Development (Human Resource Developm	ent Policies
	and Philosophy, Human Resource Development Man	agement),
	Labor Practices—Respecting the Rights of Workers	
	(Management That Respects the Rights of Workers)	
	Practices—Dialogue with Employees (Management to	
	Dialogue with Employees) ) , Employees' Health and	-
	(Employees' Health and Safety Policies and Philosop	-
	Employees' Health and Safety Management), Comm	nunity
	Engagement (Community Engagement Policies and I	Philosophy,
	Community Engagement Management)	
	Governance: Governance Policies and Philosophy	

103-3 Evaluation of the management approach Sustainability at Nissan: Sustainability Strategy, Long-Term Vision and Goals for 2022 Reforming Corporate Governance Environmental: Environmental Policies and Philosophy (Nissan's Steps to Address Environmental Issues), Climate Change (Product Initiatives (Product Initiatives: Achievements), Corporate Activity Initiatives (Corporate Activity Initiatives: Achievements) ), Air Quality (Air Quality: Achievements), Resource Dependency (Resource Dependency Management, Resource Dependency: Achievements, Resource Dependency: Achievements in Waste Reduction), Water Scarcity (Water Resource Achievements), Strengthening our Business Foundations to Address Environmental Issues Social: Human Rights (Human Rights: Achievements), Diversity and Inclusion (Diversity and Inclusion Achievements) , Traffic Safety (Traffic Safety Achievements (Vehicles, People, Society)), Product Safety and Quality (Product Safety and Quality Achievements), Supply Chain Management (Supply Chain Management Policies and Philosophy, Supply Chain Management, Action Against Conflict Minerals), Human Resource Development (Human Resource Development Management, Human Resource Development Achievements), Labor Practices-Dialogue with Employees (Management to Promote Dialogue with Employees, Achievements in Dialogue with Employees) ), Employees' Health and Safety (Employees' Health and Safety Management, Employees' Health and Safety Achievements), Community Engagement (Social Contribution Achievements in FY2018)

# Environmental · Social · Governance

#### Environmental

#### GRI103: Management Approach 2016

Topics	References	Reason for Omission / Explanation
103-1 Explanation of the material topic and its Boundary	Sustainability at Nissan: Sustainability Strategy Environmental: Environmental Policies and Philosophy (Nissan's Understanding of Environmental Issues), Climate Change (Toward a Carbon-Neutral Society, Product Initiatives (Policies and Philosophy for Product Initiatives), Corporate Activity Initiatives (Policies and Philosophy for Corporate Activity Initiatives)), Air Quality (Air Quality Policies and Philosophy), Resource Dependency (Resource Dependency Policies and Philosophy), Water Scarcity (Policies and Philosophy for Water Resource Management)	
103-2 The management approach and its components	Sustainability at Nissan: Sustainability Strategy, Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022, Managing the Advancement of Sustainability Environmental: Environmental Policies and Philosophy (Nissan's Steps to Address Environmental Issues), Climate Change (Toward a Carbon- Neutral Society, Product Initiatives (Policies and Philosophy for Product Initiatives, Management of Product Initiatives), Corporate Activity Initiatives (Policies and Philosophy for Corporate Activity Initiatives (Policies and Philosophy for Corporate Activity Initiatives: Achievements)), Air Quality (Air Quality Policies and Philosophy), Resource Dependency (Resource Dependency Policies and Philosophy, Resource Dependency Management), Water Scarcity (Water Resource Management, Water Resource Achievements), Strengthening our Business Foundations to Address Environmental Issues	
103-3 Evaluation of the management approach	Sustainability at Nissan: Sustainability Strategy, Long-Term Vision and Goals for 2022 Environmental: Environmental Policies and Philosophy (Nissan's Steps to Address Environmental Issues), Climate Change (Product Initiatives (Product Initiatives: Achievements), Corporate Activity Initiatives (Corporate Activity Initiatives: Achievements)), Air Quality (Air Quality: Achievements), Resource Dependency (Resource Dependency Management, Resource Dependency: Achievements, Resource Dependency: Achievements in Waste Reduction), Water Scarcity (Water Resource Achievements), Strengthening our Business Foundations to Address Environmental Issues	

#### GRI203: Indirect Economic Impacts 2016

Topics	References	Reason for Omission / Explanation
203-1 Infrastructure investments and services supported	Climate Change (Product Initiatives (Product Initiatives: Achievements, Initiatives for Partnerships with Society) )	
203-2 Significant Indirect Economic Impacts	Climate Change (Product Initiatives (Product Initiatives: Achievements, Initiatives for Partnerships with Society) )	

#### GRI301: Materials 2016

Topics	References	Reason for Omission / Explanation
301-1 Materials used by weight or volume	ESG Data: Environmental Data (Material Balance)	
301-2 Recycled input materials used	Resource Dependency (Resource Dependency: Achievements in Reuse) ESG Data: Environmental Data (Resource Dependency: Resource Dependency (Reuse) )	
301-3 Reclaimed products and their packaging materials	Resource Dependency (Resource Dependency: Achievements in Reuse) ESG Data: Environmental Data (Resource Dependency: Resource Dependency (Reuse))	

#### GRI302: Energy 2016

Topics	References	Reason for Omission / Explanation
302-1 Energy consumption within the organization	Corporate Activity Initiatives (Corporate Activity Initiatives: Achievements (Saving Energy in Global Production, Promoting Renewable Energy) ) ESG Data: Environmental Data (Climate Change (Corporate Activities) ,Energy per Vehicle Produced, Energy per Revenue, Material Balance)	
302-2 Energy consumption outside of the organization	Corporate Activity Initiatives (Corporate Activity Initiatives: Achievements)	
302-3 Energy intensity	ESG Data: Environmental Data (Climate Change (Corporate activities), Energy per vehicle produced, Energy per Revenue)	
302-4 Reduction of energy consumption	Corporate Activity Initiatives (Corporate Activity Initiatives: Achievements (Saving Energy in Global Production, Promoting Renewable Energy) ) ESG Data: Environmental Data (Climate Change (Corporate Activities), Energy per Vehicle Produced, Energy per Revenue)	
302-5 Reductions in energy requirements of products and services	Climate Change (Product Initiatives: Achievements, Electrification and Internal Combustion Engine Initiatives) ESG Data: Environmental Data (Climate Change (Products))	

#### GRI303: Water 2016

Topics	References	Reason for Omission / Explanation
303-1 Water withdrawal by source	Water Scarcity (Water Resource Achievements (Water Input for Corporate Activities)) ESG Data: Environmental Data (Water Resource Management (Water Input for Corporate Activities), Material Balance)	
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.

#### GRI304: Biodiversity 2016

Topics	References	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 Foundations to Address Environmental Issues (Stakeholder Engagement (Priority Issues for Automobile Manufacturers Regarding the Protection of Air, Water, Soil and Biodiversity) )	
304-2 Significant impacts of activities, products, and services on biodiversity	Strengthening our Business Foundations to Address Environmental Issues (Stakeholder Engagement (Priority Issues for Automobile Manufacturers Regarding the Protection of Air, Water, Soil and Biodiversity) )	
304-3 Habitats protected or restored	Strengthening our Business Foundations to Address Environmental Issues (Stakeholder Engagement (Priority issues for automobile manufacturers regarding the protection of air, water, soil and biodiversity) )	
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Strengthening our Business Foundations to Address Environmental Issues (Stakeholder Engagement (Priority issues for automobile manufacturers regarding the protection of air, water, soil and biodiversity) )	

#### GRI305: Emissions 2016

Topics	References	Reason for Omission / Explanation
305-1 Direct /Scope 1 GHG emissions	Climate Change (Corporate Activity Initiatives: Achievements) ESG Data: Environmental Data (Climate Change (Corporate Activities), Material Balance)	
305-2 Energy indirect /Scope 2 GHG emissions	Climate Change (Corporate Activity Initiatives: Achievements) ESG Data: Environmental Data (Climate Change (Corporate Activities) , Material Balance)	
305-3 Other indirect /Scope 3 GHG emissions	ESG Data: Environmental Data (Climate Change (Corporate Activities) — Scope 3 Emissions by Category)	
305-4 GHG emissions intensity	Climate Change (Corporate Activity Initiatives: Achievements) ESG Data: Environmental Data (Climate Change (Corporate Activities))	
305-5 Reduction of GHG emissions	Climate Change (Corporate Activity Initiatives: Achievements) , Air Quality (Air Quality: Achievements) ESG Data: Environmental Data (Climate Change (Corporate Activities) )	
305-6 Emissions of ozone- depleting substances /ODS	Non-disclosure	Information unavailable: We have not collected the data requested.
305-7 Nitrogen oxides /NOx, sulfur oxides /SOx, and other significant air emissions	Air Quality (Air Quality: Achievements) , Resource Dependency (Resource Dependency: Achievements (Proper Use of Regulated Chemical Substances) ) ESG Data: Environmental Data (Air Quality, Material Balance)	

#### GRI306: Effluents and Waste 2016

Topics	References	Reason for Omission / Explanation
306-1 Water discharge by quality and destination	Water Scarcity (Water Resource Achievements) ESG Data: Environmental Data (Water Resource Management (Water Discharge from Corporate Activities (Per Vehicle Produced)), Material Balance)	
306-2 Waste by type and disposal method	Resource Dependency (Waste) ESG Data: Environmental Data (Resource Dependency (Facility Waste) , Material Balance)	
306-3 Significant spills	Strengthening our Business Foundations to Address Environmental Issues (Environmental Governance (Sanctions and Government Guidance at Nissan Production Facilities) )	
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.

#### GRI307: Environmental Compliance 2016

Topics	References	Reason for Omission / Explanation
307-1 Non-compliance with Environmental laws and regulations	Strengthening our Business Foundations to Address Environmental Issues (Environmental Governance (Sanctions and Government Guidance at Nissan Production Facilities) )	

#### GRI308: Supplier Environmental Assessment 2016

Topics	References	Reason for Omission / Explanation
308-1 New suppliers that were screened using Environmental criteria	Strengthening our Business Foundations to Address Environmental Issues (Stakeholder Engagement (Working with Suppliers) )	
308-2 Negative Environmental impacts in the supply chain and actions taken	Strengthening our Business Foundations to Address Environmental Issues (Stakeholder Engagement (Working with Suppliers) )	

#### Social Data

#### GRI103: Management Approach 2016

Topics	References	Reason for Omission / Explanation
103-1 Explanation of the material topic and its Boundary	Sustainability at Nissan: Sustainability Strategy Social: Social Policies and Philosophy, Human Rights (Human Rights Policies and Philosophy), Diversity and Inclusion (Diversity and Inclusion Policies and Philosophy, Diversity and Inclusion Management), Traffic Safety (Traffic Safety Policies and Philosophy), Product Safety and Quality (Product Safety and Quality Policies and Philosophy, Product Safety and Quality Management), Supply Chain Management (Supply Chain Strategy, Supply Chain Management Policies and Philosophy, Supply Chain Management, Action Against Conflict Minerals), Human Resource Development (Human Resource Development Policies and Philosophy), Labor Practices—Respecting the Rights of Workers (Policies and Philosophy on Respecting the Rights of Workers), Labor Practices— Dialogue with Employees (Policies and Philosophy on Dialogue with Employees), Employees' Health and Safety (Employees' Health and Safety Policies and Philosophy, Employees' Health and Safety Management), Community Engagement (Community Engagement Policies and Philosophy)	
103-2 The management approach and its components	Sustainability at Nissan: Sustainability Strategy, Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022, Managing the advancement of sustainability Social: Social Policies and Philosophy, Human Rights (Human Rights Management), Diversity and Inclusion (Diversity and Inclusion Policies and Philosophy, Diversity and Inclusion Management), Traffic Safety (Traffic Safety Policies and Philosophy, Traffic Safety Management), Product Safety and Quality (Product Safety and Quality Policies and Philosophy, Product Safety and Quality Management), Supply Chain Management (Supply Chain Strategy, Supply Chain Management Policies and Philosophy, Supply Chain Management, Action Against Conflict Minerals), Human Resource Development (Human Resource Development Policies and Philosophy, Human Resource Development Management), Labor Practices—Respecting the Rights of Workers (Management That Respects the Rights of Workers), Labor Practices—Dialogue with Employees (Management to Promote Dialogue with Employees)), Employees' Health and Safety (Employees' Health and Safety Policies and Philosophy, Employees' Health and Safety Management), Community Engagement (Community Engagement Policies and Philosophy, Community Engagement Management)	

103-3 Evaluation of the management approach	Sustainability at Nissan: Sustainability Strategy, Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022 Social: Human Rights (Human Rights: Achievements), Diversity and Inclusion (Diversity and Inclusion Achievements), Traffic Safety (Traffic Safety Achievements (Vehicles, People, Society)), Product Safety and Quality (Product Safety and Quality Achievements), Supply Chain Management (Supply Chain Management Policies and Philosophy, Supply Chain Management, Action Against Conflict Minerals), Human Resource Development (Human Resource Development Management, Human Resource Development Achievements), Labor Practices-Dialogue with Employees (Management to Promote Dialogue with Employees, Achievements in Dialogue with Employees)), Employees' Health and Safety (Employees' Health and Safety Management, Employees' Health and Safety Achievements), Community Engagement (Social Contribution Achievements in FY2018)	
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#### GRI201: Economic Performance 2016

Topics	References	Reason for Omission / Explanation
201-1 Direct economic value generated and distributed	Community Engagement (Social Contribution Achievements in FY2018) ESG Data: Social Data (Contributing to Local Communities)	
201-2 Financial implications and other risks and opportunities due to climate change	The Current State of Nissan's Risk Management: P.1	
201-3 Defined benefit plan obligations and other retirement plans	Financial Information: P.89	

#### GRI203: Indirect Economic Impacts 2016

Topics	References	Reason for Omission / Explanation
203-1 Infrastructure investments and services supported	Community Engagement (Community Engagement Policies and Philosophy)	
203-2 Significant Indirect Economic Impacts	Community Engagement (Social Contribution Achievements in FY2018) ESG Data: Social Data (Contributing to Local Communities)	

#### GRI308: Supplier Environmental Assessment 2016

Topics	References	Reason for Omission / Explanation
308-1 New suppliers that were screened using Environmental criteria	Supply Chain Management (Supply Chain Strategy (Nissan's Approach to the Supply Chain) , Supply Chain Management)	

#### GRI403: Occupational Health and Safety 2016

Topics	References	Reason for Omission / Explanation
403-1 Workers representation in formal joint management– worker health and safety committees	Employees' Health and Safety (Employees' Health and Safety Management)	
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 (Employees' Health and Safety Achievements)	As we are currently transitioning to a more comprehensive approach to frequency rate aggregation, this report contains only Japan's domestic rates.
403-4 Health and safety topics covered in formal agreements with trade unions	Employees' Health and Safety (Employees' Health and Safety Policies and Philosophy)	

#### GRI404: Training and Education 2016

Topics	References	Reason for Omission / Explanation
404-1 Average hours of training per year per employee	Human Resource Development (Human Resource Development Achievements) ESG Data: Social Data (Human Resource Development)	
404-2 Programs for upgrading employee skills and transition assistance programs	Human Resource Development ( <u>Human Resource Development</u> Management)	
404-3 Percentage of employees receiving regular performance and career development reviews	Human Resource Development ( <u>Human Resource Development</u> Management)	

#### GRI405: Diversity and Equal Opportunity 2016

Topics	References	Reason for Omission / Explanation
405-1 Diversity of governance bodies and employees	Diversity and Inclusion (Diversity and Inclusion Achievements) ESG Data: Social Data (Employee Data, Diversity and Inclusion)	

#### GRI406: Non-discrimination 2016

Topics	References	Reason for Omission / Explanation
406-1 Incidents of discrimination and corrective actions taken	Human Rights (Human Rights Achievements), Diversity and Inclusion (Diversity and Inclusion Policies and Philosophy), Supply Chain Management (Supply Chain Management Policies and Philosophy), Labor Practices—Respecting the Rights of Workers (Management That Respects the Rights of Workers))	No report applicable to 2018

#### GRI407: Freedom of Association and Collective Bargaining 2016

Topics	References	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 (Human Rights Achievements) , Supply Chain Management (Supply Chain Management Policies and Philosophy)	No report applicable to 2018

#### GRI408: Child Labor 2016

Topics	References	Reason for Omission / Explanation
408-1 Operations and suppliers at significant risk for incidents of child labor	Human Rights (Human Rights Management) , Supply Chain Management (Supply Chain Management Policies and Philosophy)	No report applicable to 2018

#### GRI409: Forced or Compulsory Labor 2016

Topics	References	Reason for Omission / Explanation
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Rights (Human Rights Management) , Supply Chain Management (Supply Chain Management Policies and Philosophy)	No report applicable to 2018

#### GRI411: Rights of Indigenous Peoples 2016

Topics	References	Reason for Omission / Explanation
411-1 Incidents of violations involving rights of indigenous peoples	Human Rights (Human Rights Achievements) , Supply Chain Management (Supply Chain Management Policies and Philosophy)	No report applicable to 2018

#### GRI412: Human Rights Assessment 2016

Topics	References	Reason for Omission / Explanation
412-1 Operations that have been subject to human rights reviews or impact assessments	Human Rights (Human Rights Management) , Supply Chain Management (Action Against Conflict Minerals)	
412-2 Employee training on human rights policies or procedures	Human Rights (Human Rights Achievements)	

#### GRI413: Local Communities 2016

Topics	References	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.
413-2 Operations with significant actual and potential negative impacts on local communities	-	Information unavailable: We have not collected the data requested.

#### GRI414: Supplier Social Assessment 2016

Topics	References	Reason for Omission / Explanation
414-1 New suppliers that were screened using social criteria	Supply Chain Management (Supply Chain Strategy (Nissan's Approach to the Supply Chain) , Supply Chain Management, Action Against Conflict Minerals)	

#### GRI416: Customer Health and Safety 2016

Topics	References	Reason for Omission / Explanation
416-1 Assessment of the health and safety impacts of product and service categories	Traffic Safety (Traffic Safety Achievements ( <u>Vehicles</u> , <u>People</u> , <u>Society</u> ) )	

#### GRI417: Marketing and Labeling 2016

Topics	References	Reason for Omission / Explanation
417-1 Requirements for product and service information and labeling	Traffic Safety (Traffic Safety Achievements (Vehicles, People, Society) )	

#### Governance

#### GRI103: Management Approach 2016

Topics	References	Reason for Omission / Explanation
103-1 Explanation of the material topic and its Boundary	Sustainability at Nissan: Sustainability Strategy Governance: Governance Policies and Philosophy	
103-2 The management approach and its components	Sustainability at Nissan: Sustainability Strategy, Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022, Managing the Advancement of Sustainability Reforming Corporate Governance Governance: Governance Policies and Philosophy	
103-3 Evaluation of the management approach	Sustainability at Nissan: Sustainability Strategy, Internal Efforts to Promote Sustainability, Long-Term Vision and Goals for 2022 Reforming Corporate Governance	

#### GRI205: Anti-corruption 2016

Topics	References	Reason for Omission / Explanation
205-1 Operations assessed for risks related to corruption	Compliance (Anti-Bribery (Anti-Bribery: Policies and Philosophy) )	
205-2 Communication and training about anti- corruption policies and procedures	Compliance (Anti-Bribery (Anti-Bribery: Management) )	

#### GRI405: Diversity and Equal Opportunity 2016

Topics	References	Reason for Omission / Explanation
405-1 Diversity of governance bodies and employees	Corporate Governance (Corporate Governance System in Detail) ESG Data: Social Data (Employee Data,Diversity and Inclusion), Governance Data Financial Information: P.42	

#### GRI418: Customer Privacy 2016

Topics	References	Reason for Omission / Explanation
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Risk Management (Protecting Personal Data and Reinforcing Information Security)	

#### GRI419: Socioeconomic Compliance 2016

Topics	References	Reason for Omission / Explanation
419-1 Non-compliance with laws and regulations in the social and economic area	Compliance (Enhancing Compliance, Anti-Bribery (Anti-Bribery: Management), Business Ethics, Security-Related Export Controls, Nissan's Commitment to Tax Transparency)	In fiscal year 2018, one instance of potential bribery was discovered by the Global Compliance Office.

# QUICK GUIDE FOR INVESTORS

Environmental	Environmental Policy & Management Systems	Policies and Philosophy for Environmental Issues	Policies and Philosophy for Environmental Issues	-
	Climate Change	Climate Change: Strategy for Addressing Climate Change	-	-
	GHG / Products	Climate Change (Product Initiatives): Policies and Philosophy for Product Initiatives	Climate Change (Product Initiatives): Management of Product Initiatives	<ul> <li>Climate Change (Product Initiatives): Achievements</li> <li>Climate Change (Product Initiatives): Electrification and Internal Combustion Engine Initiatives</li> <li>ESG Data (Environmental Data): Climate Change (Products)</li> </ul>
	GHG / Corporate Activities	Climate Change (Corporate Activity Initiatives): Policies and Philosophy for Corporate Activity Initiatives	Climate Change (Corporate Activity Initiatives): Management of Corporate Activity Initiatives	<ul> <li>Climate Change (Corporate Activity Initiatives): Achievements</li> <li>ESG Data (Environmental Data): Climate Change (Corporate Activities)</li> </ul>
	Energy Consumption	Climate Change (Corporate Activity Initiatives): Policies and Philosophy for Corporate Activity Initiatives	Climate Change (Corporate Activity Initiatives): Management of Corporate Activity Initiatives	<ul> <li>Climate Change (Corporate Activity Initiatives): Achievements</li> <li>ESG Data (Environmental Data): Climate Change (Corporate Activities)</li> </ul>
	Environmental Responsibility in Product	<ul> <li>Climate Change (Product Initiatives): Policies and Philosophy for Product Initiatives</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Lifecycle Assessment to Reduce Environmental Impact</li> </ul>	<ul> <li>Climate Change (Product Initiatives): Management of Product Initiatives</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Lifecycle Assessment to Reduce Environmental Impact</li> </ul>	<ul> <li>Climate Change (Product Initiatives): Achievements</li> <li>Climate Change (Product Initiatives): Electrification and Internal Combustion Engine Initiatives</li> <li>Climate Change (Product Initiatives): Initiatives for Lighter Vehicles</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Lifecycle Assessment to Reduce Environmental Impact</li> <li>ESG Data (Environmental Data): Climate Change (Products)</li> <li>ESG Data (Environmental Data): Strengthening Our Business Foundations to Address Environmental Issues</li> </ul>
	Clean Tech	Climate Change (Product Initiatives): Policies and Philosophy for Product Initiatives	Climate Change (Product Initiatives): Management of Product Initiatives	<ul> <li>Climate Change (Product Initiatives): Achievements</li> <li>Climate Change (Product Initiatives): Electrification and Internal Combustion Engine Initiatives</li> <li>ESG Data (Environmental Data): Climate Change (Products)</li> </ul>

	Effective Utilization of Resources	<ul> <li>Resource Dependency: Resource Dependency Policies and Philosophy</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Stakeholder Engagement</li> </ul>	<ul> <li>Resource Dependency: Resource Dependency Management</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Stakeholder Engagement</li> </ul>	<ul> <li>Resource Dependency: Achievements</li> <li>Strengthening Our Business Foundations to Address Environmental Issues: Stakeholder Engagement</li> <li>ESG Data (Environmental Data): Resource Dependency (Reuse)</li> </ul>
	Pollution	Air Quality: Air Quality Policies     and Philosophy	-	<ul> <li>Air Quality: Achievements</li> <li>ESG Data (Environmental Data): Air Quality</li> </ul>
	Waste Materials	Resource Dependency: Resource Dependency Policies and Philosophy	Resource Dependency: Resource Dependency Management	<ul> <li>Resource Dependency: Achievements in Waste Reduction</li> <li>ESG Data (Environmental Data): Resource Dependency (Facility Waste)</li> </ul>
	Use of Water Resources	• Water Scarcity: Policies and Philosophy for Water Resource Management	Water Scarcity: Water     Resource Management	<ul> <li>Water Scarcity: Water Resource Achievements</li> <li>ESG Data (Environmental Data): Resource Dependency (Water Resource Management)</li> </ul>
	Biodiversity	• Strengthening Our Business Foundations to Address Environmental Issues: Stakeholder Engagement (Priority Issues for Automobile Manufacturers Regarding the Protection of Air, Water, Soil and Biodiversity)		
Social	Human Rights	Human Rights: Human Rights     Policies and Philosophy	Human Rights: Human Rights Management	Human Rights: Human Rights     Achievements
	Diversity	Diversity and Inclusion:     Diversity and Inclusion     Policies and Philosophy	Diversity and Inclusion:     Diversity and Inclusion     Management	<ul> <li>Diversity and Inclusion: Diversity and Inclusion Achievements</li> <li>ESG Data (Social Data): Diversity and Inclusion</li> </ul>
	Product Safety and Quality	<ul> <li>Product Safety and Quality:</li> <li>Product Safety and Quality</li> <li>Policies and Philosophy</li> </ul>	• Product Safety and Quality: Product Safety and Quality Management	Product Safety and Quality:     Product Safety and Quality     Achievements
	Customer Relationship Management	Product Safety and Quality: Product Safety and Quality Policies and Philosophy	Product Safety and Quality: Product Safety and Quality Management	Product Safety and Quality:     Product Safety and Quality     Achievements
	Supply Chain Management	<ul> <li>Supply Chain Management: Supply Chain Strategy</li> <li>Supply Chain Management: Supply Chain Management Policies and Philosophy</li> </ul>	Supply Chain Management:     Supply Chain Management	-
	Employment	Labor Practices (Respecting the Rights of Workers): Policies and Philosophy on Respecting the Rights of Workers	Labor Practices (Respecting the Rights of Workers): Management That Respects the Rights of Workers	<ul> <li>Labor Practices (Respecting the Rights of Workers): Achievements in Respecting the Rights of Workers</li> <li>ESG Data (Social Data): Employee Data</li> </ul>
	Human Resources	Human Resource     Development: Human     Resource Development     Policies and Philosophy	Human Resource     Development: Human     Resource Development     Management	<ul> <li>Human Resource Development: Human Resource Development Achievements</li> <li>ESG Data (Social Data): Human Resource Development</li> </ul>

	Non-discrimination and Equal Opportunity	<ul> <li>Human Rights: Human Rights Policies and Philosophy</li> <li>Diversity and Inclusion: Diversity and Inclusion Policies and Philosophy</li> <li>Labor Practices (Respecting the Rights of Workers): Policies and Philosophy on Respecting the Rights of Workers</li> </ul>	<ul> <li>Human Rights: Human Rights Management</li> <li>Diversity and Inclusion: Diversity and Inclusion Management</li> <li>Labor Practices (Respecting the Rights of Workers): Management That Respects the Rights of Workers</li> </ul>	<ul> <li>Human Rights: Human Rights Achievements</li> <li>Diversity and Inclusion: Diversity and Inclusion Achievements</li> <li>Labor Practices (Respecting the Rights of Workers): Achievements in Respecting the Rights of Workers</li> <li>ESG Data (Social Data): Employee Data</li> <li>ESG Data (Social Data): Diversity and Inclusion</li> </ul>
	Dialogue with Employees	Labor Practices (Dialogue with Employees): Policies and Philosophy on Dialogue with Employees	Labor Practices (Dialogue with Employees): Management to Promote Dialogue with Employees	Labor Practices (Dialogue with Employees): Achievements in Dialogue with Employees
	Employees' Health and Safety	• Employees' Health and Safety: Employees' Health and Safety Policies and Philosophy	Employees' Health and Safety: Employees' Health and Safety Management	Employees' Health and Safety: Employees' Health and Safety Achievements
	Community Engagement	Community Engagement: Community Engagement Policies and Philosophy	Community Engagement: Community Engagement Management	<ul> <li>Contributing to Local Communities: Achievements</li> <li>ESG Data (Social Data): Contributing to Local Communities</li> </ul>
Governance	Corporate Governance	Reforming Corporate Governance		
		Governance Policies and     Philosophy	Corporate Governance:     Corporate Governance     System in Detail	• ESG Data (Governance Data)
	Risk Management	Risk Management		
	Anti-Corruption	Compliance: Anti-Bribery		
	Observance of Business Ethics	Compliance: Business Ethics		