

# Environment

<b>Environmental Plan Package</b> .....	24	<b>Resource Recycling Initiatives</b> .....	46
Structure of the Environmental Plan Package, Environmental Policy, Environmental Vision 2050.....	24	Basic Approach, Recycling-Based Design and Development.....	47
Environmental Targets 2030.....	25	End-of-Life Vehicle Recycling.....	48
Framework for Consideration in Formulation, Steps to Formulation.....	26	Initiatives to Reduce Waste Generation and Reuse Resources in Production Activities ....	49
<b>Environmental Management</b> .....	27	<b>Prevention of Pollution</b> .....	50
Basic Approach, Management Structure .....	27	Basic Approach .....	50
Environmental Management System .....	28	Purifying Exhaust Gas while Driving.....	51
Promoting Life Cycle Assessment (LCA).....	28	Reduction of Hazardous Substances .....	52
Enhancing Disclosure of Environmental Information.....	28	Reduction of In-Cabin VOCs, Preventing Air Pollution .....	53
Promoting Employee Education and Awareness Activities .....	29	Management of Chemical Substances.....	54
Collaborating with Suppliers .....	29	<b>Conservation of Water Resources</b> .....	55
Promoting Environmental Preservation Activities Rooted in the Local Community.....	29	Basic Approach, Reduction of Water Withdrawal Volume.....	56
Environmental Risk Management.....	29	Reuse of Discharged Water, Prevention of Water Pollution.....	57
<b>Responding to Climate Change and Energy Issues</b> .....	30	<b>Preservation of Biodiversity</b> .....	58
Basic Approach .....	31	Basic Approach, Promoting Preservation Activities by Utilizing Ecosystem Surveys at Domestic Business Sites.....	59
Responding to the TCFD Recommendations.....	32	Overseas Preservation Activities.....	60
Reducing CO <sub>2</sub> Emissions across the Supply Chain .....	36		
Development and Spread of Electrified Vehicles .....	37		
Promoting the Use of Electrified Vehicles as a Way of Adopting to Climate Change.....	40		
Development of Improving Fuel Economy Technologies .....	41		
System to Promote the Reduction of CO <sub>2</sub> Emissions from Business Activities.....	42		
Introduction of Renewable Energy.....	42		
Initiatives at Manufacturing Plants .....	43		
Office Initiatives.....	43		
Dealer Initiatives.....	44		
Physical Distribution.....	45		

## Environmental Plan Package

### Structure of the Environmental Plan Package

Anticipating a time 30 years in the future, in October 2020 MITSUBISHI MOTORS formulated the Environmental Plan Package, which defines the directions and targets of its environmental initiatives. This pack-environment-related management strategy, outlining our objectives for realizing a sustainable society, including one that is carbon-neutral, as we conduct our business activities. The Environmental Plan Package comprises the Environmental Policy, which we have revised to incorporate our medium- to long-term perspective; the Environmental Vision 2050, which sets out our vision for society to be achieved by 2050 and directions for our initiatives; and the Environmental Targets 2030, which clarifies specific initiatives to be achieved by 2030 in accordance with this vision.

#### Environmental Policy

MITSUBISHI MOTORS recognizes that responding to environmental issues through its business activities is essential. Accordingly, we will engage proactively in specific and effective measures from a medium- to long-term perspective. (Directions of initiatives)

1. We will face three specific environmental issues head-on: climate change, resource depletion and environmental pollution.
2. Given that 2050 is an important landmark for climate change on a global scale, we have clarified levels to be achieved, in 10-year increments, and are pursuing initiatives to this end.
3. We will respond to environmental issues through the following activities.
  - Unique environmental contributions through our products
  - Initiatives at each stage of automobile production, sale and use
  - Collaboration with business partners, affiliated institutions, governments and local authorities
  - Initiatives targeting environmental issues rooted in the local community
  - Initiatives to determine and reduce environmental impact of all related business activities

### Environmental Policy

The Company has been acting in accordance with its Environmental Policy, which was formulated in 1999. However, in the 20 years that have passed since that time the operating environment has changed, prompting us to revise the policy in 2020 to reflect current social trends. We recognize that responding to environmental issues in our business activities is essential, and so have newly incorporated a medium- to long-term outlook into our policy.

Focusing specifically on climate change, resource depletion and environmental pollution, we aim to contribute to the preservation of water resources and biodiversity through initiatives in these areas.

### Environmental Vision 2050

Members of the Paris Agreement, adopted in 2015, agreed to limit the rise in average global temperatures to 2°C above levels before the Industrial Revolution and endeavor to keep the increase to 1.5°C.

From this basis, we established initiatives to pursue from a long-term perspective, leading up to 2050. In 2018, the IPCC\* published the Special Report on Global Warming of 1.5°C, which calls for society as a whole to achieve a net-zero balance between human-caused greenhouse gas emissions and absorption.

As these measures illustrate, awareness of climate change and other environmental issues is rising each year. Companies are also being called upon to undertake more ambitious initiatives.

Against this backdrop, we formulated the Environmental Vision 2050, which sets out our vision for society to be achieved by 2050, as well as directions for our initiatives, with regard to climate change, resource circulation and preventing environmental pollution.

#### Aiming to Become Carbon Neutral by 2050

With regard to action to climate change, we will contribute to net-zero CO<sub>2</sub> emissions and the realization of a society that is resilient to climate change. We have recently revised Environmental Vision 2050 to incorporate our goal of becoming carbon neutral.

\* United Nations Intergovernmental Panel on Climate Change

#### Environmental Vision 2050

In December 2015, the Paris Agreement was adopted at COP21. Members of this accord agreed to curtail the rise in average global temperatures to 2°C above levels before the Industrial Revolution and to work to keep the rise to 1.5°C. Given such social demands, Mitsubishi Motors believes it can contribute toward the realization of a sustainable society, achieving a balance between the progress of humankind and the global environment, through the proliferation of electrified vehicles and the promotion of their use in society.

##### Action to Climate Change

Through electrified vehicles and the increased use of renewable energy, we aim to become carbon neutral and contribute to the realization of a society that is resilient to climate change.

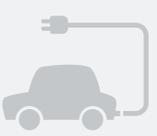
##### Resource Circulation

We will contribute to a resource-recycling-oriented society by minimizing input resources and maximizing resource efficiency.

##### Pollution Prevention

We will contribute toward a society free of environmental pollution affecting human health and the ecosystem by reducing the environmental impact of our products and the pollution resulting from our business activities.

## Environmental Targets 2030

Targets 2030	Main Initiatives
<b>Action to Climate Change</b>  CO <sub>2</sub> emissions from new vehicles* <sup>1</sup> : <b>-40%</b> (compared with FY2010) CO <sub>2</sub> emissions from business activities* <sup>3</sup> : <b>-40%</b> (compared with FY2014) Implementation of measures to address climate change	<ul style="list-style-type: none"> <li>Promotion of electric vehicles, centering on plug-in hybrid electric vehicles (PHEVs) (electric vehicles*<sup>2</sup> sales ratio: 50%)</li> <li>Improved fuel efficiency of ICE vehicles</li> <li>Promotion of energy conservation</li> <li>Introduction of renewable energy</li> <li>Promotion of V2X*<sup>4</sup> (DENDO DRIVE STATION/HOUSE)</li> <li>Contribution to adaptation through agreements in times of disaster</li> </ul>
<b>Resource Circulation</b>  Expanding adoption of plastic materials not derived from oil Achievement of zero direct landfill waste (less than 0.5%) Reuse of batteries used in electric vehicles	<ul style="list-style-type: none"> <li>Development of material technologies</li> <li>Proactive use in parts</li> <li>Reduction of waste generation and promotion of reuse as resources</li> <li>Appropriate waste treatment</li> <li>Promotion of recovery and use (BESS*<sup>5</sup>, etc.)</li> <li>Technology development with a view to reuse (battery packs, systems)</li> </ul>
<b>Pollution Prevention</b>  Conformance to regulations on regulations on use of hazardous substances in products	<ul style="list-style-type: none"> <li>Obtaining information on laws and regulations, enhancing the internal management structure</li> <li>Collaboration with suppliers</li> </ul>

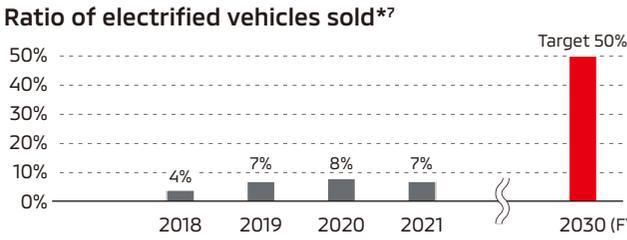
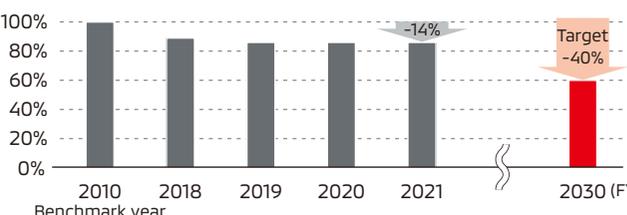
Environmental Management	
<ul style="list-style-type: none"> <li>Promotion of LCA*<sup>6</sup></li> <li>Expanded environmental information disclosure</li> <li>Collaboration with suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Promotion of environmental management within the Group and at sales outlets</li> <li>Promotion of employee education and awareness activities</li> <li>Promotion of grass-roots community environmental preservation activities</li> </ul>

\*1: CO<sub>2</sub> emissions per new vehicle while driving \*2: Battery electric vehicles, plug-in hybrid electric vehicles (PHEVs), and hybrid electric vehicles  
 \*3: Scope 1 (direct emissions) and Scope 2 (indirect emissions)  
 \*4: A general term encompassing vehicle to home (V2H) and vehicle to grid (V2G), among others.  
 \*5: BESS stands for Battery Energy Storage System.  
 \*6: LCA stands for life cycle assessment, which is a technique for calculating the environmental impact of a product from manufacturing to disposal.

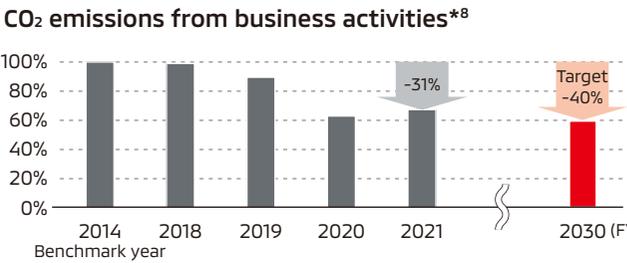
Environmental Vision 2050 sets out our vision for society in 30 years' time, as well as the directions for our initiatives. In line with this vision, we have formulated Environmental Targets 2030, which sets forth items to be addressed in the next 10 years. When setting these targets, we referred to various external scenarios and international frameworks.

Our principal targets and results for FY2021 are outlined below.

### Environmental Targets 2030: Principal Targets and Results



\*<sup>7</sup> Based on wholesale unit sales. MITSUBISHI MOTORS-brand products only.



\*<sup>8</sup> The decrease in CO<sub>2</sub> emissions from business activities is due to emission-reducing effect of introducing solar power generation and other measures, as well as to a decrease in production volume stemming from the COVID-19 pandemic, which has persisted since FY2020.

## Framework for Consideration in Formulation

MITSUBISHI MOTORS established the Environmental Working Group, made up of members from across the Company, and proceeded with considerations toward the formulation of the Environmental Plan Package.

After certain directions had been determined, a small circle chaired by the then-CEO moved forward to specifics. These were proposed to the Executive Committee and Board of Directors and approved.

<July 2018 to December 2019>

### Sustainability Committee

(Chair: CEO\*; members: Division general managers of relevant divisions)

#### Environmental Working Group

Leader: Technical advisor to the chairman\*<sup>1</sup>  
 Subleader: Division general manager of the Development Management Division\*<sup>1</sup>  
 Secretariat: Sustainability Promotion Department  
 Members: **Corporate departments**

- Strategy management
- Human resources
- Public and investor relations
- Asset management
- Finance

**Product and business activities departments**

- Technology strategy
- Manufacturing
- EV business
- Development management
- Materials technology
- Logistics
- Procurement
- Overseas sales
- Domestic sales
- After-sales service

<January–October 2020>

### Board of Directors

### Executive Committee

#### Small Circle

Members:

- CEO\*<sup>1</sup>
- Co-COO (in charge of development)
- Director in charge of manufacturing
- Director in charge of sustainability
- Head of corporate strategy
- Division general manager of the Development Management Division
- Division general manager of the Product Strategy Division
- Division general manager of the Production Engineering Division

\*1 Positions as of March 2020

## Steps to Formulation

The Environmental Working Group we set up in FY2018 gathered data related to global social changes, such as economic growth and population increase, as well as environmental issues. In particular, the group looked for information on regions of importance to our business, ascertaining the status of local communities and government environmental policies. We also looked at unit sales and the number of vehicles owned in each country, arranging this data to match the Company's business characteristics by looking at our business data and results of environmental initiatives. The group also summarized our efforts to date.

Using this data, we then verified each of the environmental issues and our relationship to them. We identified three environmental issues to face head-on: action to climate change, resource circulation and pollution prevention. We considered the long-term outlook for these environmental issues by studying external scenarios from the IEA\*<sup>2</sup> and IPCC, as well as by running our own simulations. We then arranged the issues to be addressed by thinking about how to contribute in a manner tailored to local communities while maximizing our strengths, looking at each market from a regional perspective and considering plug-in hybrid electric vehicles (PHEVs) and other business characteristics.

Based on this analysis, we clearly spelled out the directions for initiatives indicated in the Environmental Policy and Environmental Vision and set numerical targets for the items in the Environmental Targets. In this way, we formulated the New Environmental Plan Package, which provides an overall summary of our environmental strategies.

In addition, we had outside experts review the draft package we had formulated, looking at it from a stakeholder perspective.

Going forward, we will continue to accumulate and analyze information on social trends and confirm the appropriateness of our Environmental Plan Package.

\*2: International Energy Agency

Gathering of Information

- **Social and economic conditions**  
Such as economic growth and population increases
- **Status of environmental issues**  
Climate change, resource depletion, environmental pollution, loss of biodiversity and shortage of water resources
- **Trends in key regions (Japan, ASEAN, Oceania, others)**  
GDP, changes in the population, government environmental policies, etc.
- **Automobile production and data related to the Company**  
<Business>  
Unit sales and number of vehicles owned, globally and by region  
<Results of Environmental Initiatives>  
CO<sub>2</sub> emissions (Scope 1, 2, 3), amount of waste generated, etc.

Analysis

- **Verify relationships between environmental issues and the Company**  
Identify environmental issues to face head-on
- **Consider long-term outlook for environmental issues**  
Gather external scenarios on CO<sub>2</sub> emissions, run our own simulations
- **Arrange initiatives to be taken, given our business characteristics (markets and products)**

Formulation

- **Clearly spell out the Environmental Policy and Environmental Vision 2050**
- **Consider initiatives in the Environmental Targets 2030, as well as numerical targets**

Review

- **Conduct review via outside experts**

## Environmental Management

### Basic Approach

Minimizing environmental impact is an essential element of MITSUBISHI MOTORS' sustainable growth. To this end, we recognize the importance of reinforcing our environmental management. We also believe that the costs of promoting related initiatives are an important investment from a long-term perspective.

In order to promote environmental initiatives reliably and efficiently, we have constructed a framework for environmental management. We are promoting

Group initiatives, including education and awareness activities for employees, and the acquisition of certifications for environment management systems among affiliated companies.

We also disseminate information about initiatives on our website and through our sustainability report. We value opportunities to receive feedback from our various stakeholders.

Please see page 123 for details on environmental accounting.

### Management Structure

Since 1993, we have been holding an Environmental Council, which is attended by the Executive Officer, President & CEO and officers from each division. The Sustainability Committee, chaired by the Executive Officer, President & CEO, has met since FY2017, and environmental initiatives have been positioned as key material issues for the Company. The committee discusses our environmental policies and targets and confirms the progress and results from the Environmental Targets 2030. Items of particular importance are reported to the Board of Directors.

For the management of target companies, we have established selection criteria as a framework for the scope of environmental targets and the collection and publication of environmental data, and we review these criteria on a regular basis.

### Management Target Companies (22 Companies)

As of March 31, 2022

Country	Company Name
Japan	MITSUBISHI MOTORS CORPORATION

### Production Affiliates

Country	Company Name
Japan	Pajero Manufacturing Co., Ltd. Suiryu Plastics Co., Ltd.
Thailand	Mitsubishi Motors (Thailand) Co., Ltd. (MMTh) MMTh Engine Co., Ltd. (MEC)
Philippines	Mitsubishi Motors Philippines Corporation (MMPC) Asian Transmission Corporation (ATC)
Indonesia	Mitsubishi Motors Krama Yudha Indonesia (MMKI)
Vietnam	Mitsubishi Motors Vietnam Co., Ltd. (MMV)
Malaysia	MMC Manufacturing Malaysia Sdn. Bhd, (MMCM)

### Non-Production Affiliates

Country	Company Name
Japan	Mitsubishi Automotive Engineering Co., Ltd. Mitsubishi Automotive Logistics Technology Co., Ltd. Higashi Nihon Mitsubishi Motor Sales Co., Ltd. Nishi Nihon Mitsubishi Motor Sales Co., Ltd.
United States	Mitsubishi Motors North America, Inc. (MMNA) Mitsubishi Motors R&D of America, Inc. (MRDA)
Netherlands	Mitsubishi Motors Europe B.V. (MME)
Germany	Mitsubishi Motor R&D Europe GmbH (MRDE)
UAE	Mitsubishi Motors Middle East and Africa FZE (MMMEA)
Australia	Mitsubishi Motors Australia, Ltd. (MMAL)
New Zealand	Mitsubishi Motors New Zealand Ltd. (MMNZ)
Canada	Mitsubishi Motor Sales of Canada, Inc. (MMSCAN)

## Environmental Management System

In FY2010, MITSUBISHI MOTORS acquired companywide integrated ISO 14001 certification. (Previously, sites in Japan had acquired this certification individually.) We are leveraging the ISO 14001 framework and engaging in ongoing initiatives to improve business activities.

The ISO 14000 framework is proving helpful in the companywide promotion of the Environmental Plan Package we formulated in FY2020.

Affiliates in Japan and overseas are also being encouraged to acquire ISO 14001 and Eco-Action 21\*1 certification, and they are engaging in environmental management.

\*1 Eco-Action 21 is a certification and registration system based on the Environmental Management Systems guidelines formulated by the Japanese Ministry of the Environment for medium-sized companies.

### Status of ISO 14001 Certification (As of May 31, 2022)

Development Companies
Mitsubishi Automotive Engineering Co., Ltd.
Production Companies
Suiryo Plastics Co., Ltd.
Mitsubishi Motors Philippines Corporation (MMPC)
Asian Transmission Corporation (ATC)
Mitsubishi Motors (Thailand) Co., Ltd. (MMTh)
MMTh Engine Co., Ltd. (MEC)
Mitsubishi Motors Krama Yudha Indonesia (MMKI)
Distribution and After-Sales Service Companies
Mitsubishi Automotive Logistics Technology Co., Ltd.
(Maintenance Service & Logistics Business Division, Powertrain Department, Osaka Special Purpose Vehicle & Engineering Section of the Vehicle Business Department, Mizushima Maintenance Service Section of the Vehicle Business Department)

Please see page 44 for a list of the dealers that have received Eco-Action 21 certification.

## Promoting Life Cycle Assessment (LCA)

We perform LCA to determine the environmental impact across a product's life cycle. We evaluate total emissions, mainly of CO<sub>2</sub>, from such processes as extracting the resources used in parts and materials, producing materials, manufacturing parts, assembling vehicles, producing fuel, driving and disposing of disused automobiles.

We use LCA to develop advanced parts, electrified vehicles and new-model vehicles that help address the issues related to climate change and energy. We compare life cycle CO<sub>2</sub> emissions with those of previous parts and vehicles.

### Examples of LCA Implementation in FY2021

Model	Objective
All-New Outlander PHEV model	<ul style="list-style-type: none"> <li>Assessing the reduction compared with previous model</li> <li>Assessing the ratios for production, use and disposal</li> <li>Assessing the impact of components</li> </ul>

### LCA Results for All-New "Outlander PHEV Model" (CO<sub>2</sub> emissions ratio)



\*2 Excluding items that have been removed prior to disposal: bumpers, tires, lead batteries, lithium-ion drive batteries, etc.

In light of growing interest in the environmental impact across the entire life cycle in individual countries and regions, we will continue to strengthen our systems and build the foundations to ensure we remain abreast of developments related to regulations and incentives.

## Enhancing Disclosure of Environmental Information

We disclose information about our environmental initiatives through our website and sustainability report. We will continue to take leverage these initiatives to engage in dialogue with institutional investors and experts about environmental and other non-financial information.

### Release of Environmental Information on Website and in the Sustainability Report

The Company releases information on the concepts and details of its environmental initiatives on the Company website and in the sustainability report in order to make its environmental initiatives more widely known.

Sustainability website: "Environment"

(WEB) <https://www.mitsubishi-motors.com/en/sustainability/environment/>

### Communication with Investors

We engage in dialogue with investors, exchanging opinions about environmental and other non-financial information.

In FY2021, our executives in charge of various areas of sustainability engaged in dialogue with the people in charge of stewardship at institutional investors in Japan and overseas. We listened to a host of opinions regarding climate change risks and opportunities, our response to the TCFD recommendations and our initiatives.

## Promoting Employee Education and Awareness Activities

MITSUBISHI MOTORS conducts sustainability-related awareness activities throughout the year as part of its aims of deepening the understanding of sustainability among all executives and employees and contributing toward the realization of a sustainable society through routine business activities. Environmental education and awareness are one aspect of these activities.

In FY2021, we conducted rank-based training and distributed videos to employees. In these ways, we sought to promote an understanding of our social responsibility for realizing a sustainable society, the relationship between sustainability and the environment, and the relationship between environmental issues and our business activities.

Please see page 11 for details on our activities to promote an awareness of sustainability.

## Collaborating with Suppliers

Our business partners cooperate with us in various initiatives, including meeting the requirements of our Green Procurement Guidelines. We believe that ongoing communication is an important part of the steady implementation of initiatives by business partners. We explain the importance of environmental initiatives at our Suppliers Meetings, for example, which are attended by our business partners, and strive to

engage in communications to reduce the environmental impact of our entire supply chain.

Please see page 96 for details on the Green Procurement Guidelines.

## Promoting Environmental Preservation Activities Rooted in the Local Community

Recognizing the rich characteristics of life on land and the importance of our connection to this life, the Company promotes environmental preservation activities that are rooted in the local community. Realizing that factory construction and other types of land use have a direct or indirect impact on biodiversity, we strive to preserve surrounding ecosystems. We do so by carefully maintaining connections between factories and the natural environments that surround them and by maintaining green spaces within factory sites. By participating in forest preservation projects in Japan and overseas, we strive to select species that are suitable to specific regions. In addition, employee volunteers work with local residents to plant and cultivate trees, engaging in activities connected to local communities.

Please see page 58 for details on our preservation of biodiversity.

## Environmental Risk Management

Having learned from past cases of failing to comply with environmental regulations such as those aimed at preventing pollution, we make every effort to com-

ply with relevant regulations.

We sincerely respond to complaints from neighborhood residents after investigating the situation.

In the event that environmental laws and regulations are violated or an environmental accident occurs (such as if regulatory values are exceeded), or if we receive a complaint, the corresponding division must submit a Legal Non-Conformity Report to the Compliance Department and take necessary measures against the cause. The report clarifies the details of the case, measures and more, and appropriate countermeasures are taken. Furthermore, in order to prevent recurrence, initiatives are in place to improve work processes, enhance the supervision system, and increase employee awareness.

In FY2021, we were subject to no fines or administrative orders stemming from violations of environmental laws and regulations\*. However, in two instances plants exceeded statutory values provided under the Water Pollution Prevention Act, and in one instance they exceeded statutory values provided under the Air Pollution Control Act.

Other than those cases mentioned above, voluntary internal checks and monitoring activities uncovered 7 cases of legal non-compliance (including delays in notification and inadequate inspections).

We responded to these incidents by swiftly taking corrective action, introducing measures to prevent recurrence and to stop the occurrence of similar cases by sharing information with other related divisions about the incidents and countermeasures.

\* Refers to 31 environment-related laws and regulations identified by the Company, including the Water Pollution Prevention Act and the Air Pollution Control Act.

# Responding to Climate Change and Energy Issues



## Medium- to Long-Term Visions for Material Issues and FY2021 Results

	Risks	Opportunities	Direction of Responses
Long Term	<ul style="list-style-type: none"> <li>As regulations on fuel economy, CO<sub>2</sub> and ZEVs* are strengthened, failure to comply could make the Company susceptible to fines, credit costs or increasing costs for technology development to achieve regulatory compliance.</li> <li>The Company could incur higher procurement costs, such as for electricity and raw materials, due to the introduction of carbon taxes or other carbon pricing.</li> <li>More frequent and intense meteorological disasters that damage production facilities or supply chain interruptions could halt production.</li> </ul>	<ul style="list-style-type: none"> <li>We could increase sales by enhancing our lineup of electrified vehicles and other products that help reduce CO<sub>2</sub> emissions.</li> <li>We could meet new demand for emergency power sources for use during meteorological disasters.</li> </ul>	<ul style="list-style-type: none"> <li>We will contribute to the realization of a society more resilient to climate change as we move toward net-zero CO<sub>2</sub> emissions through the growing proliferation of electrified vehicles and renewable energy.</li> </ul>

\* Zero emission vehicles (ZEVs) are electric vehicles (EVs) and fuel cell vehicles that emit no exhaust gases. Automotive regulations in the US state of California state that for manufacturers that sell more than a certain number of units in the state, a certain percentage of those units must be ZEVs.

	External Environment	Stakeholders' Needs and Expectations	Medium-Term Targets
Medium Term	<ul style="list-style-type: none"> <li>More than 140 countries and regions pledging to be carbon neutral by 2050.</li> <li>Leading countries announcing higher 2030 targets moving toward COP26.</li> <li>Various national governments considering or announcing lower CO<sub>2</sub> and higher fuel economy standards, making electrified vehicles mandatory, banning the sale of vehicles with internal combustion engines, strengthening regulations on life cycle assessments (LCA).</li> <li>Automakers in Japan and overseas raising electrification targets.</li> </ul>	<ul style="list-style-type: none"> <li>As interest in environmental considerations mounts, growing expectation for carbon neutrality across the supply chain.</li> <li>Growing ESG investment (investors promoting changes in corporate activities)</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions from new vehicles: -40%</li> <li>Electrified vehicles sales ratio: 50%</li> <li>CO<sub>2</sub> emissions from business activities: -40%</li> <li>Promotion of initiatives to address climate change</li> </ul>

Items	FY2021 Targets and Results	Self-Evaluation
By 2030, reduce CO <sub>2</sub> emissions from new vehicles by 40% (compared with FY2010)	Identify CO <sub>2</sub> emissions from new vehicles based on new business plan, and reflect in product plans for next fiscal year measures that will erase gaps between targets and identified results: CO <sub>2</sub> emissions Down 14% (result)	○
Achieve an electrified vehicles sales ratio of 50% by 2030	Identify ratio of electrified vehicles sales based on new business plan, and reflect in product plans for next fiscal year measures that will erase gaps between targets and identified results: electrified vehicles sales ratio 7% (result)	○
By 2030, reduce CO <sub>2</sub> emissions from business activities by 40% (compared with FY2014)	Reduction measures implemented: Installed a solar power system, upgraded to energy-saving equipment Established a system for promoting CO <sub>2</sub> reduction activities and set targets for each site and fiscal year Result of establishing a roadmap and implementing reduction measures: CO <sub>2</sub> emissions Down 31% (result)	○
Enact measures in response to climate change	Promote disaster countermeasures, such as electricity supply systems that use electrified vehicles. Specifically, introduced various measures, including the DENDO DRIVE STATION/HOUSE, DENDO Community Support Program and V2X demonstration project	○

○: As planned △: Delayed



Targets  
● 7.2  
● 7.3



Target  
● 9.4



Targets  
● 13.1  
● 13.2  
● 13.3

## Basic Approach

In recent years, extreme weather, such as heat waves, droughts and floods due to heavy rain, has caused disasters one after another around the world. The leading culprit behind these extreme-weather events is climate change, and global warming caused by CO<sub>2</sub> and other greenhouse gases is a major factor.

International frameworks for realizing a sustainable society, such as the Paris Agreement and the United Nations Sustainable Development Goals (SDGs) are making major progress. In particular, the Paris Agreement has set targets on climate change and fostered increased awareness toward corporate responsibility. Recently, Japan and more than 140 other countries have pledged to be carbon neutral by 2050. Japan, the United States and other countries have raised their targets for reducing greenhouse gas emissions by 2030. Thus, efforts to achieve a decarbonized society are rapidly gaining momentum.

Automobiles generate CO<sub>2</sub> throughout the life cycle, from production to driving and disposal. Accordingly, recognizing that "responding to climate change and energy issues" was particularly high in terms of stakeholder concern and degree of impact on MITSUBISHI MOTORS, we identified this as a material issue. In the Environmental Plan Package, this is also positioned as one of the material issues for the Company to address directly, and we are setting specific targets in this regard.

To reduce energy consumption and CO<sub>2</sub> emissions in all business activities, including development, production and distribution, as well as at and offices, we are promoting various initiatives, such as electrification technologies, the development of fuel-economy-improving technologies, the introduction of low-energy equipment in production processes and the use of renewable energy in offices and dealers. In particular, the Company (which counts electrification technologies as one of its strengths) should be able to work simultaneously to realize a sustainable society and achieve sustainable growth for the Company.

Our electrified vehicles have large-capacity batteries that can be used in energy management and as emergency power sources in times of disaster. Through these measures, we are also engaging in measures to adapt to climate change.

Going forward, we will strengthen our efforts to further reduce CO<sub>2</sub> emissions with the aim of becoming carbon neutral throughout the supply chain by 2050.



## Responding to the TCFD Recommendations

With the issue of climate change growing increasingly serious, the Financial Stability Board established the Task Force on Climate-related Financial Disclosures (TCFD), which in 2017 announced its recommendations. These recommendations encourage companies to disclose information related to climate change so that investors can appropriately assess climate-related risks and opportunities.

Recognizing the potential of climate change to present medium- to long-term risks and opportunities that affect its business domains, in July 2021 MITSUBISHI MOTORS expressed its support for the TCFD Recommendations. Accordingly, we are analyzing the impact of climate change on our businesses and finances (scenario analysis). We will reflect the results of scenario analysis in our management strategies to enhance the resilience of our strategies and improve information disclosure in accordance with the TCFD Recommendations.

### Governance

We have defined "responding to climate change and energy issues" as one of our materiality issues. The Sustainability Committee, which is chaired by the Executive Officer, President & CEO (who is also the chief executive officer responsible for climate change issues) deliberates on the assessment of climate change risks, opportunities and response measures. The committee also confirms the state of progress and results under Environmental Targets 2030. This committee meets three times a year, in principle. Matters of particular importance and discussed by, reported to and supervised by the Board of Directors.

For details regarding governance, please see the Sustainability Management on page 10 and Environmental Management on page 27.

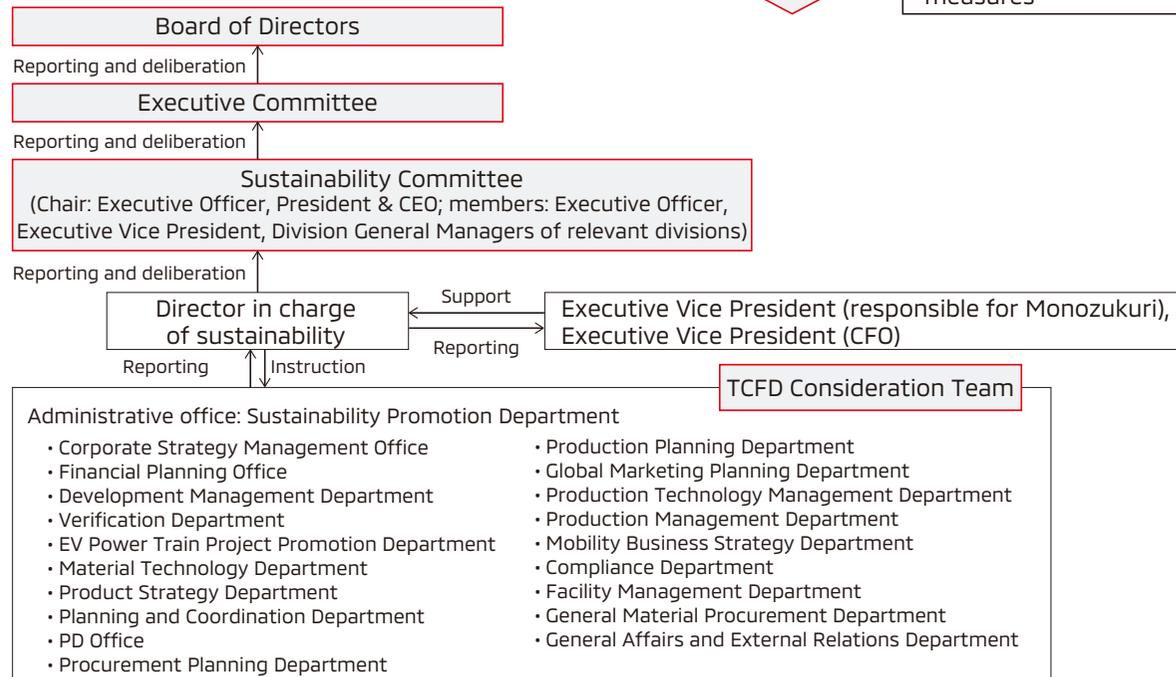
### Strategies

We consider climate change risks and opportunities to be an important perspective in the formulation of our business strategy. We identified and assessed short-, medium- and long-term risks and opportunities, and envisioned a society in 2030 based on multiple climate scenarios. In addition, we are analyzing the impact of risks and opportunities on our business and considering measures to deal with them.

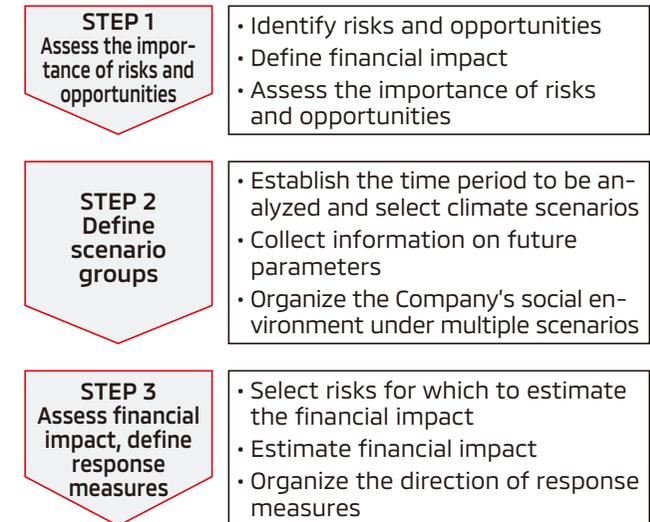
#### Scenario Analysis Process and Structure for Consideration

Upon expressing our support for the TCFD Recommendations, we formed a company-wide, cross-functional team to conduct a scenario analysis, using the property outlined at right.

#### Structure for Consideration



#### Scenario Analysis Implementation Process





### Climate Change Risks and Opportunities

We identified and evaluated risks and opportunities that could affect MITSUBISHI MOTORS' business activities, based on the timing of occurrence and degree of impact. As particularly high-impact migration risks, we identified the "strengthening of requirements for fuel economy/CO<sub>2</sub> and zero-emission vehicles" and the "introduction and expansion of carbon pricing." We identified "increasing frequency and intensity of meteorological disasters" as a physical risk. While these risks may affect our business in various ways, we recognize that responding appropriately to these risks will lead to greater sales of electrified vehicles and new business opportunities.

### Recognized Risks and Opportunities

Category		Item	Assumed Impact on the Company's Business Activities	Timing of the Impact*	Degree of impact
Migration risks	Policies and regulations	Strengthening of requirements for fuel economy/CO <sub>2</sub> and zero-emission vehicles	<ul style="list-style-type: none"> <li>Increased development/procurement/production costs to comply with stricter regulations</li> <li>Increase in fines and credit purchase costs due to non-fulfillment of regulations</li> </ul>	Medium/long term	Large
		Introduction and expansion of carbon pricing	<ul style="list-style-type: none"> <li>An increasing tax burden on the Company's emissions due to the introduction and expansion of carbon taxes and other sorts of carbon pricing, as well as higher prices on carbon, and higher costs due to a price shift toward the procurement, production and logistics stages</li> </ul>	Medium/long term	Large
	Markets	Changes in the energy mix	<ul style="list-style-type: none"> <li>Higher energy costs due to a rise in electricity prices resulting from the increased introduction of renewable energy and carbon-neutral sources of electricity, such as hydrogen</li> </ul>	Medium/long term	Medium
		Tight supply and demand for raw materials (rare metals)	<ul style="list-style-type: none"> <li>Rise in the cost of raw materials (such as rare metals) and components due to growing demand for storage batteries</li> </ul>	Medium/long term	Medium
		Changes in user awareness and behavior	<ul style="list-style-type: none"> <li>Decrease in sales volume due to the development of public transportation infrastructure and the proliferation of sharing in urban areas</li> </ul>	Medium/long term	Medium
Reputation	Increasingly stringent assessment by ESG institutions and stakeholders	<ul style="list-style-type: none"> <li>Decline in the Company's social image and share price</li> </ul>	Short/medium term	Medium	
Physical risks	Acute	Increasing frequency and intensity of meteorological disasters	<ul style="list-style-type: none"> <li>Damage to buildings and facilities caused by typhoons and torrential rains, and the suspension of operations at production facilities due to supply chain disruptions (delays in the supply of parts stemming from damage to suppliers and the disruption of transportation routes)</li> </ul>	Short/medium/long term	Large
	Chronic	Rise in average temperatures	<ul style="list-style-type: none"> <li>Rising (energy) cost of air conditioning to maintain the work environment and employee health</li> </ul>	Short/medium/long term	Small
		Rise in ocean levels	<ul style="list-style-type: none"> <li>Increased flooding and surge in the instance of storms due to rising sea levels, resulting in operational shutdowns at manufacturing facilities and increased investment in disaster countermeasures</li> </ul>	Short/medium/long term	Medium
Opportunities	Products and services	Growing demand for electrified vehicles	<ul style="list-style-type: none"> <li>Expand sales of electrified vehicles by improving product capabilities and taking advantage of government and municipal measures to promote electrified vehicles</li> <li>Increase sales of electrified vehicles and V2X-related equipment/services in line with the growing value of electrified vehicles as energy infrastructure</li> <li>Boost sales of electrified vehicles that can help supply power in response to growing demand to securing sources of emergency power in times of disaster</li> </ul>	Medium/long term	Large
	Energy sources	Advancement in energy technologies	<ul style="list-style-type: none"> <li>Reduce energy costs by promoting energy conservation activities and the introduction of renewable energy</li> </ul>	Medium/long term	Medium

\*: Timing of the impact  
 Short term: Up to three years; medium term: three to 10 years; long-term: more than 10 years. Some issues impacts have already occurred as a result of the recent international situation.

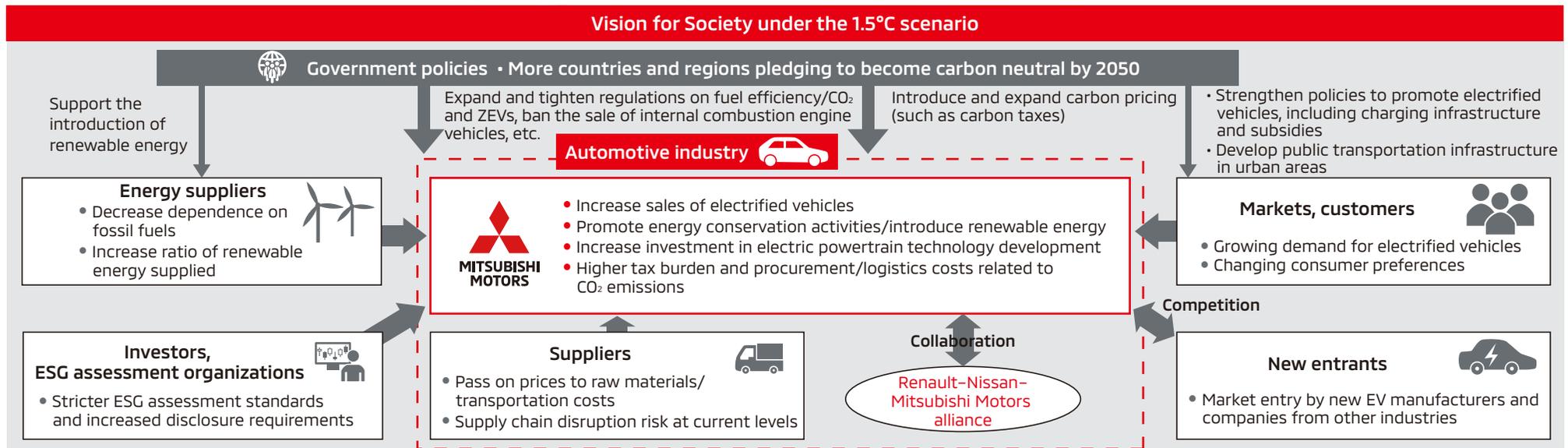


### Visions for Society in 2030 Based on Multiple Climate Scenarios

To understand the future impact of climate change risks and opportunities on MITSUBISHI MOTORS' business, we drew up three visions for society in 2030 based on climate scenarios and forecast information from the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC): a 4°C scenario, a 2°C scenario and a 1.5°C scenario.

	Main reference scenarios	Visions for society in 2030
4°C scenario	<ul style="list-style-type: none"> <li>IEA Stated Policies Scenario</li> <li>IPCC RCP8.5/SSP5-8.5, RCP4.5/SSP2-4.5 scenarios</li> </ul>	While many developed countries are raising government targets and tightening policies and regulations, this tendency has not spread to emerging markets, and societies remain dependent on fossil fuels. As a result, global CO <sub>2</sub> emissions have not been reduced, temperatures continue to rise, and weather disasters such as typhoons and torrential rains have become more frequent and severe over a wider area than at present. Regulations on fuel efficiency/CO <sub>2</sub> , ZEVs, and other policies to promote electrified vehicles, such as charging infrastructure and subsidies, have been introduced and strengthened only in certain countries and regions (urban areas), and electrified vehicles have not been widely adopted, leaving the market dominated by internal combustion engine vehicles.
2°C scenario	<ul style="list-style-type: none"> <li>IEA Sustainable Development Scenario</li> <li>IPCC RCP2.6/SSP1-2.6</li> </ul>	Both developed countries and emerging markets have raised government targets and strengthened policies and regulations based on the Paris Agreement. With the shift to renewable energy, global CO <sub>2</sub> emissions are being reduced amid population and economic growth. Although the rise in temperatures has been controlled to some extent, weather disasters such as typhoons and torrential rains are occurring at current levels. Demand for electrified vehicles is increasing due to a rise in the number of countries introducing and strengthening regulations on fuel efficiency/CO <sub>2</sub> and ZEVs, as well as policies aimed at the popularization of electrified vehicles in various countries. In addition, the number of countries and regions introducing carbon taxes and other carbon pricing measures is expanding, and carbon prices are rising.
1.5°C scenario	<ul style="list-style-type: none"> <li>IEA Net Zero Emissions by 2050</li> <li>IPCC SSP1-1.9</li> </ul>	An increasing number of countries and regions around the world have net-zero targets, as well as policies and regulations that go even further than under the 2°C scenario. The renewable energy ratio has increased significantly, and the expansion of hydrogen and other low-carbon power sources has greatly reduced dependence on fossil fuels. Although the rise in temperatures has been controlled to some extent, weather disasters such as typhoons and torrential rains are occurring at current levels. Regulations on fuel efficiency/CO <sub>2</sub> and ZEVs and policies to promote electrified vehicles have been further expanded and strengthened from the 2°C scenario, and demand for electrified vehicles has increased significantly. In addition, carbon pricing has been rising in the countries and regions where it has been introduced, and the carbon price has increased even more than under the 2°C scenario. In addition, consumer behavior is undergoing a major transformation, including more ride-sharing in urban areas, use of public transportation, and more short-distance travel by bicycle and on foot.

### Vision for Society under the 1.5°C scenario (concept drawing)





### Impact of Risks and Opportunities on MITSUBISHI MOTORS' Business Activities

We looked at risks and opportunities with regard to items that had a particularly high degree of impact under the 1.5°C scenario and 2°C scenario (under which "action to climate change" is being taken for society as a whole) and under the 4°C scenario (under which "action to climate change" is not being taken), considering the impact on the Company's business activities.

Scenario		Risks/Opportunities		Assumed impact on the Company's business activities	Key countermeasures
Item					
1.5°C/ 2°C	(1) Strengthening of requirements for fuel economy/CO <sub>2</sub> and zero-emission vehicles	<b>Risks</b>	<ul style="list-style-type: none"> <li>Need for both developed countries and emerging markets to comply with stricter regulations</li> <li>Increasing likelihood of noncompliance</li> </ul>	<ul style="list-style-type: none"> <li>Higher development/procurement/production costs</li> <li>Fines and credit purchase costs increase if regulations are not met</li> </ul>	<ul style="list-style-type: none"> <li>Reduce costs by taking advantage of the alliance, such as by standardizing components</li> <li>Promote electrification, including PHEVs and EVs</li> </ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Growing demand for electrified vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Increased sales of electrified vehicles and expansion of the value chain related to electrified vehicles</li> </ul>	
	(2) Introduction and expansion of carbon pricing	<b>Risks</b>	<ul style="list-style-type: none"> <li>Introduction and expansion of carbon taxes, causing carbon prices to rise</li> </ul>	<ul style="list-style-type: none"> <li>Increased direct and indirect tax burdens and higher costs at the procurement, production and logistics stages</li> </ul>	<ul style="list-style-type: none"> <li>Promote energy conservation activities and introduce renewable energy</li> </ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Promotion of energy-saving technologies</li> <li>Increasing use of renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Lower energy costs</li> </ul>	
4°C	(3) Increasing frequency and intensity of meteorological disasters	<b>Risks</b>	<ul style="list-style-type: none"> <li>Increased possibility of factory damage and supply chain disruptions due to frequent and severe heavy rain and flooding</li> </ul>	<ul style="list-style-type: none"> <li>Damage to production and development facilities</li> <li>Lower earnings due to operational shutdowns</li> </ul>	<ul style="list-style-type: none"> <li>Review BCP, assuming such factors as heavy rain and flooding</li> <li>Consider and implement flood control measures (such as the installation of water-prevention panels)</li> <li>Same as (1)</li> </ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Greater demand for electrified vehicles, owing to growing need to secure emergency power sources</li> </ul>	<ul style="list-style-type: none"> <li>Increased use of electrified vehicles that can help supply emergency power</li> </ul>	

### Our State of Response

Looking 30 years into the future, in 2020 we formulated the Environmental Plan Package to promote climate change countermeasures. As for climate change countermeasures in the product area, in the May 2021 update to our mid-term business plan, "Small but Beautiful," we announced that electrified vehicles would be available for all models by 2030. We will proactively launch electrified vehicles, such as the All-New "Outlander PHEV Model" and the "Eclipse Cross PHEV Model" targeting mainly developed countries and regions that are enhancing their infrastructures and adopting more stringent regulations. Meanwhile, in emerging markets we plan to strengthen our competitiveness by providing products that are suited to regional requirements.

In business activities, we are working to reduce CO<sub>2</sub> emissions by promoting energy conservation efforts at each of our sites and introducing renewable energy. Through such moves, we will prepare ourselves for carbon taxes and other risks. At the same time, we will strive to promote adaptation measures, such as the formulation of a business continuity plan (BCP), in case weather disasters become more frequent and severe. <Key Initiatives under the Environmental Plan Package>

• **Products:**  
Promote electrification centered on our proprietary plug-in hybrid electric vehicles (PHEVs) and Kei-class commercial EVs (BEVs) while reducing costs through the standardization of components by leveraging the alliance.

• **Business activities:**  
Promote energy conservation activities and the introduction of renewable energy.

• **Responses:**  
Collaborate with governments, companies and other organizations on the practical application of energy management, V2X\* and emergency power sources for use in times of disaster, utilizing the battery and power supply functions of electric vehicles (EVs) and PHEVs. Formulate business continuity plans for flooding and other risks at each site based on hazard maps, and develop systems and operational procedures in preparation for natural disasters.

\* A general term encompassing vehicle to home (V2H) and vehicle to grid (V2G)

MITSUBISHI MOTORS believes that by combining various options through alliances and proprietary technologies and by possessing a lineup of BEVs, PHEVs, and hybrid electric vehicles (HEVs), it can provide optimal solutions in terms of LCA\*<sup>1</sup> according to uncertain future scenarios and power supply configurations that vary by country, region and era.

At the same time, based on the results of the scenario analysis we conducted in FY2021 and the recent trend targeting carbon neutrality by 2050 (such as governmental declarations of carbon neutrality, target increases and policy enhancements, investor requests, and intensified corporate initiatives), we recognize the need to formulate business strategies that assume a 1.5°C scenario and review our Environmental Targets 2030. We will consider how to respond to this issue, taking into account the situation in ASEAN and other core markets, while keeping an eye on future trends toward regulatory tightening and expansion.

\*<sup>1</sup> Life cycle assessment, a technique for calculating the total environmental impact of a product, from manufacturing to disposal

## Risk Management

Our Sustainability Committee assesses and identifies climate change risks. The head of the Internal Control Promotion Office, which oversees company-wide risk management, is a member who participates in the committee's discussions.

We have established the Internal Control Committee, which is chaired by the Executive Officer, president & CEO, to create risk control system for the entire company. Climate change risks identified by the

Sustainability Committee are integrated into company-wide risk management by the Internal Control Committee, and are positioned as one of the priority risks to be addressed and managed appropriately.

For details related to risk management, see P10 "Sustainability Management," P110 "Internal Control" and P111 "Risk Management."

## Indices and Targets

When formulating the Environmental Plan Package in 2020, we established the Environmental Vision 2050, which sets out our vision for society to be achieved by 2050 and directions for our initiatives; and the Environmental Targets 2030, which clarifies specific initiatives to be achieved by 2030 in accordance with this vision. Under "Action to Climate Change," which we positioned as a topmost issue, we have set a target of reducing emissions under Scope 3\*<sup>2</sup>, Category 11 (Use of sold products), which accounts for around 70% of total emissions throughout our supply chain: "a 40% reduction in CO<sub>2</sub> emissions from new vehicles (compared with FY2010 levels)" and "electrified vehicle sales ratio of 50%." For Scope 1 and 2\*<sup>2</sup>, we set the target of "a 40% reduction in CO<sub>2</sub> emissions from our business activities (compared with FY2014 levels)." We set 2030 as our target date for these.

\*<sup>2</sup> Scope 1: A company's direct emissions (such as from burning fuel)  
 Scope 2: Indirect emissions, resulting from electricity, heat or steam provided by another company  
 Scope 3: Indirect emissions other than Scope 1 and Scope 2 (emissions from other companies and other sources related to the company's activities)



For details on indicators and targets, please see the following.

P24 "Environmental Plan Package", P120 "Environmental Data Related to Products and Business Activities (Sales of Electrified Vehicles, Scope 1, 2, 3 Emissions Results)"

## Reducing CO<sub>2</sub> Emissions across the Supply Chain

In its Environmental Targets 2030, MITSUBISHI MOTORS has set targets for reducing CO<sub>2</sub> emissions from new vehicles and business activities. We are also working to decrease CO<sub>2</sub> emissions across the supply chain in relation to corporate activities.

To calculate CO<sub>2</sub> emissions across the supply chain, in addition to emissions resulting from our own business activities (such as from our fuel use and from the generation of electricity we use), we determined emissions from the procurement and transport of raw materials, vehicle travel times, and at the disposal stage. In FY2021, across the supply chain our CO<sub>2</sub> emissions were 28,557 thousand tons of CO<sub>2</sub> equivalent.

▶ Data (pp. 120–121): CO<sub>2</sub> emissions, Scope 3 breakdown, energy input (primary, secondary energy)

## Development and Spread of Electrified Vehicles

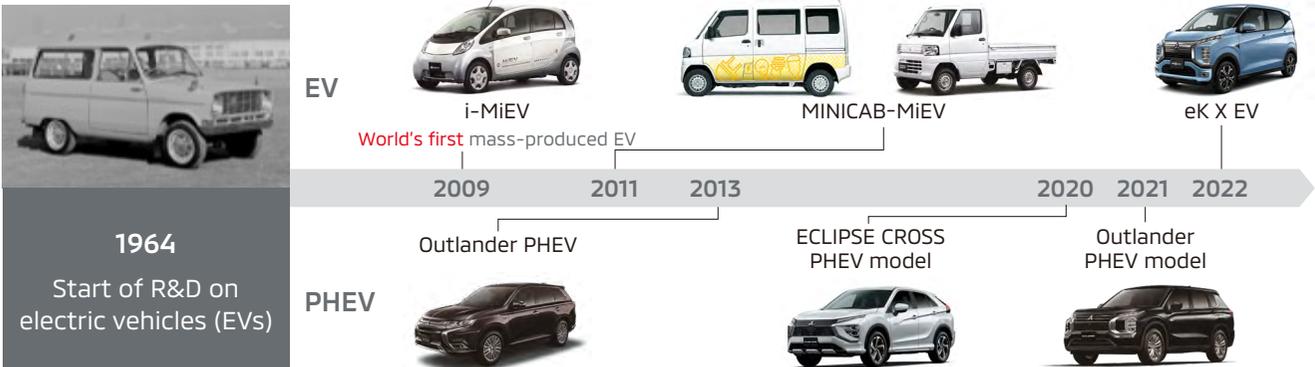
Automobiles emit CO<sub>2</sub> throughout their life cycle, during production, driving and disposal. Emissions are particularly high during the driving phase.

In our Environmental Targets 2030, MITSUBISHI MOTORS set the target of achieving a 40% reduction in CO<sub>2</sub> emissions from new vehicles by 2030 (compared with FY2010 levels). To meet this target, we have raised our target ratio of electrified vehicle sales to 50% by 2030. This change focuses our core technologies on responding to climate change and energy issues through electrified vehicles, which emit little CO<sub>2</sub> while driving, and concentrates on their development. Centering on our strength in plug-in hybrid electric vehicles (PHEVs), we will expand our lineup of electrified vehicles, thereby promoting their popularization and use in society and contributing toward the realization of a sustainable society.

### Electric Vehicles (EVs)

Electric vehicles (EVs) are driven by electricity in battery, so they emit no exhaust gases such as CO<sub>2</sub> while driving.

### Our History of Developing Electrified Vehicles



The Company released the "i-MiEV" as the world's first mass-produced Electric Vehicle (EV) in 2009. In addition to its environmental performance, the "i-MiEV" performed better than conventional gasoline engine vehicles on acceleration starting from maximum torque. In 2011, we launched the "MINICAB-MiEV," a Kei-car segment commercial electric vehicle (EV). In 2012, we began offering the "MINICAB-MiEV TRUCK," also a electric vehicle (EV) in the Kei-car segment. These technologies are the foundation of next-generation electrified vehicles, such as PHEVs.

We believe that expanding the lineup of Kei-class electrified vehicles, which are expected to be used in more everyday situations, will be the key to the spread of electric vehicles (EVs). Accordingly, in June 2022 we launched the "eK X EV," a new electric vehicle (EV) in the Kei-car class, and in autumn of 2022 we plan to launch the "MINICAB-MiEV," a commercial battery-powered vehicle in the Kei-car segment. We will continue to focus on the development of electric vehicles (EVs) to contribute toward the realization of a carbon neutral society.

## TOPICS

### Launch of the "eK X EV," a New Electric Vehicle (EV) in the Kei-Car Class



We established the "eK X EV" as our new electric vehicle (EV) in the Kei-car class, and commenced sales in June 2022. The new "eK X EV" is a new electric vehicle (EV) model in the eK X Series\*1 of Kei-class vehicles with an SUV flavor. It has a driving range of 180 km per charge (WLTC Mode)\*2, which is sufficient for daily use, and offers smooth and powerful acceleration, superb quietness and the excellent ride comfort that only an electric vehicle (EV) can offer. A newly developed EV system optimizes the layout to ensure a user-friendly, spacious and comfortable interior space. At the same time, a low center of gravity and ideal front-rear weight distribution provide excellent handling stability, while advanced driver-assistance functions and connected technologies reduce the burden on the driver and provide a safe, secure and comfortable driving experience.

The high-capacity drive battery is reliable in emergencies, and the V2L\*3 device can be used as a convenient power source for electrical appliances. The battery also helps address electricity supply and demand problems by connecting household electricity use and vehicle charging via V2H\*4 equipment.

\*1 The "eK X" (a Kei-car height wagon) and the "eK X Space" (a super-height Kei wagon)  
 \*2 According to our studies, around 80% of users of mini cars and compact cars drive 50 km or less per day. We therefore assume that most people will be able to drive for two days without recharging their batteries.  
 \*3 Short for "vehicle to load," V2L is an arrangement that allows devices to tap the electricity stored by a vehicle.  
 \*4 Short for "vehicle to home," V2H is a system that enables electricity stored in a car's battery to be supplied to the home.



Targets  
● 7.2  
● 7.3



Target  
● 9.4



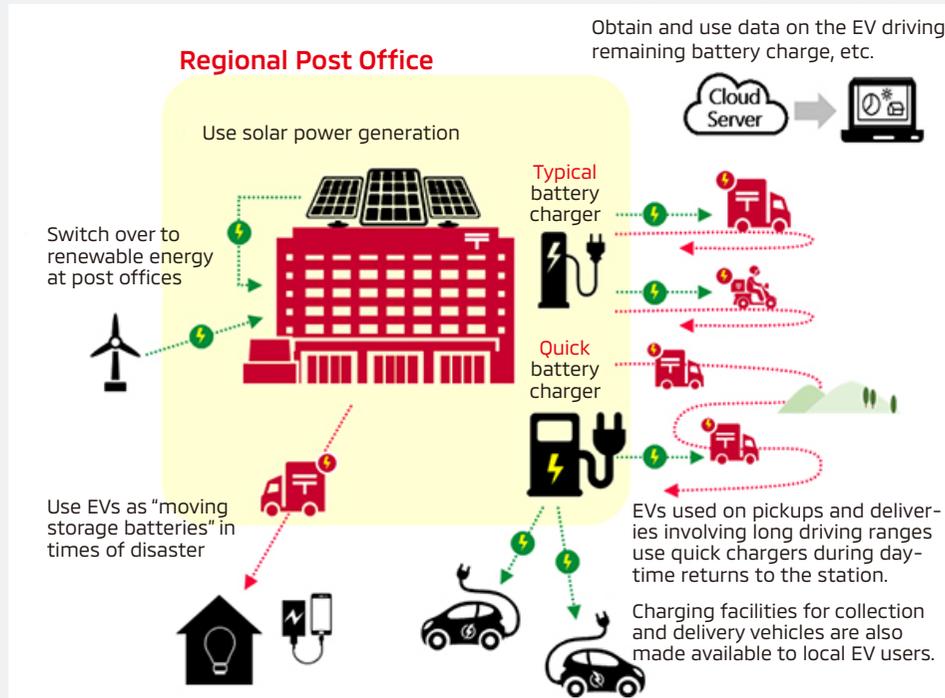
Targets  
● 13.1  
● 13.2  
● 13.3

TOPICS

**Start of Demonstration Testing on Using Electric Vehicles (EVs) for Postal Delivery**

In collaboration with Japan Post Holdings Co., Ltd., Japan Post Co., Ltd. and Tokyo Electric Power Company Holdings, Inc., MITSUBISHI MOTORS has commenced full-fledged demonstration tests in an effort to promote carbon neutrality.

A total of 20 "MINICAB-MiEV" commercial Kei-car class electric vehicles (EVs) were used in this demonstration test at the Oyama Post Office in Tochigi Prefecture and the Numazu Post Office in Shizuoka Prefecture. By acquiring and analyzing data on driving and remaining battery capacity, we will work to improve the driving performance. In addition to the electric vehicles (EVs) introduced for collection and delivery at post offices, these efforts will apply to commercial electric vehicles (EVs) as a whole, thereby contributing to the spread of electrified vehicles throughout Japan.



**Plug-in Hybrid Electric Vehicles (PHEVs)**

PHEVs are powered by electricity stored in batteries and by the motor, using the engine to generate electric power when the battery level is low. Concern over the driving range is no longer an issue as it offers the advantages of electric vehicles (EVs): powerful driving, superb quietness and high stability.

Our journey in PHEVs began with the "Outlander PHEV" in 2013, followed by the "Eclipse Cross PHEV Model" in 2020 and the launch of the All-New "Outlander PHEV Model" in 2021. At low to medium speeds, the PHEV system uses electric power from the battery, but when the battery level is low, it generates electric power during operation using the engine while also supplying power to the motor and battery. Furthermore, during high-speed driving, the vehicle is driven by the engine and simultaneously assisted by the battery-powered motor. In this way, the drive mode is automatically selected according to the situation. CO<sub>2</sub> emissions are substantially lower than conventional gasoline engine vehicles, delivering outstanding environmental performance.

The Values Plug-in Hybrid Electric Vehicles (PHEVs) Provide:

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

**Production** → **Disposal**

CO<sub>2</sub> emissions ■ Production/disposal ■ Travel

Vehicle Type	Region	Production/Disposal	Travel
HEV*1	Japan	High	High
	Europe	High	High
PHEV	Japan	Low	Low
	Europe	Low	Low
EV*2	Japan	High	Low
	Europe	High	Low

High level of CO<sub>2</sub> emitted during travelling (HEV)

Relatively less CO<sub>2</sub> emitted during production and travel\*3 (PHEV)

Higher level of CO<sub>2</sub> emitted during production\*3 (EV)

Note: Based on MITSUBISHI MOTORS' estimate of actual CO<sub>2</sub> emissions in 2025

Using the LCA\*4 concept, which is based on calculations of total environmental impact from production to disposal, MITSUBISHI MOTORS believes PHEV system is the most environmentally friendly electrical drive systems.

\*1 Hybrid electric vehicle  
 \*2 Electric vehicle  
 \*3 CO<sub>2</sub> emissions during travel include CO<sub>2</sub> emissions generated when electricity to charge the battery is generated.  
 \*4 LCA stands for life cycle assessment, which is a technique for calculating the environmental impact of a product from manufacturing to disposal.

### Travel Range

**Powered 100% by electricity for short trips**

**On longer trips, powered by electricity and sometimes gasoline**

It is possible to use only the electric motor without consuming gasoline for short trips, such as for everyday commuting and shopping. The motor and engine can also be used in combination to extend the travel range, using the engine to generate the electricity when battery levels run low.

### Power Supply Capability

**Supply electricity for up to 12 days**  
 (Based on general household consumption)

Via a bi directional (V2H: Vehicle - to -Home) charger, the electricity in the battery and the engine's generating capabilities can be used in combination to supply electricity for up to 12 days\*5. It can also be used as an emergency power source in times of disaster.

\*5 For the All-New "Outlander PHEV Model"  
 Potential supply capacity is calculated by MITSUBISHI MOTORS (calculations assume approximately 10 kWh per day for general household power consumption and do not include the conversion efficiency of the V2H equipment and/or similar device).



Targets  
● 7.2  
● 7.3



Target  
● 9.4



Targets  
● 13.1  
● 13.2  
● 13.3

TOPICS

Launch of the All-New "Outlander PHEV Model"



MITSUBISHI MOTORS has introduced a PHEV variant of the All-New "Outlander," a crossover SUV. The model launched in December 2021.

The All-New "Outlander" inherits an enhanced PHEV system with a twin-motor 4WD system consisting of one front and one rear high-output motor, a large-capacity battery and a 2.4L MIVEC engine. Combined with a control system with advanced braking performance, it delivers nimble and desired handling characteristics along with powerful acceleration, making it a safe, secure, and comfortable electrified vehicle in all situations.

The battery capacity is 20 kWh, a 45% increase over the previous model, and the EV cruising range is 87 km (WLTC Mode), improving EV performance and making EV driving sufficient for daily life.

There are three driving modes: EV Mode drives with the electric motors using power from the battery, Series Hybrid Mode uses gasoline engine to generate power for the electric motors which drive the vehicle, and Parallel Hybrid Mode uses gasoline engine to drive the vehicle assisted by the electric motors. Automatic switching between these modes according to driving conditions allows drivers to feel the driving pleasure of motor drive in a variety of environments.

TOPICS

Top PHEV Sales Volume in Japan in FY2021



In 2021, we sold more PHEVs than any other company in Japan\*, at 11,663 units. This figure reflects total sales of the All-New "Outlander PHEV Model," the previous-generation "Outlander PHEV" and the "Eclipse Cross PHEV Model."

Since 2013, when we launched the world's first SUV PHEV, the "Outlander PHEV," we have sold 30,000 units in more than 60 countries, earning us the lead in the PHEV category.

\*1 According to data from the Japan Automobile Dealers Association from April 2021 to March 2022

Promoting the Use of Electrified Vehicles as a Way of Adopting to Climate Change

By leveraging the large-capacity batteries on its electric vehicles (EVs) and PHEVs to supply electricity, the Company is contributing to measures in various countries and industries to adapt to climate change and energy issues. We are applying these to such areas as energy management, V2X\*2 and use as emergency power sources in times of disaster.

\*2 A general term encompassing vehicle to home (V2H) and vehicle to grid (V2G), among others

TOPICS

Start of a Demonstration Project to Adjust Charging toward Electrified Vehicles with a View to Realizing Dynamic Pricing

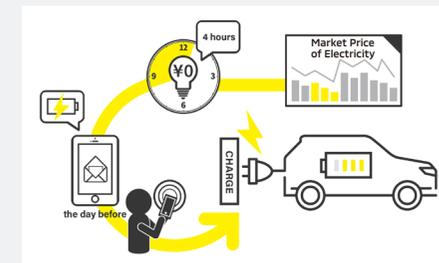
Along with MC Retail Energy Co., Ltd., we were selected to participate in the FY2020 Demonstration Project on Using Dynamic Pricing to Shift the Charging of Electrified Vehicles. A demonstration project took place in December 2021.

The ministry is concerned that the growing popularity of electrified vehicles could result in an increased load on the power grid if charging periods are concentrated. Dynamic pricing is an arrangement in which electricity rates vary depending on supply and demand. When demand for electricity increases, rates rise. Conversely, rates fall when excess supply exists, encouraging people to charge vehicles during off-peak times and reducing the load on the power grid.

In this demonstration project, we invited customers who own their electrified vehicles to participate, acting as monitors. We contacted monitors by social media or email a day in advance about four-hour windows during which electricity rates on the Japan Electric Power Exchange (JEPX) were lowest. We encouraged them to charge their electrified vehicles for free during these periods.

This project enabled electricity retailers to consider the viability of this arrangement, encouraged a shift in behavior among electrified vehicle owners and provided a chance to study the impact on the power grid.

<Flow of Activity with Demonstration Project Monitors>





Targets  
● 7.2  
● 7.3



Target  
● 9.4



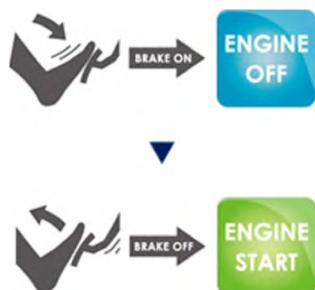
Targets  
● 13.1  
● 13.2  
● 13.3

## Development of Improving Fuel Economy Technologies

MITSUBISHI MOTORS is developing engine and body technologies to reduce fuel and energy waste in order to improve the fuel efficiency of vehicles with conventional engines.

### Idle-Stop "AS&G"

AS&G is an idling stop function that automatically stops and starts the engine when the vehicle stops or moves off. This has a major effect on improving the fuel economy because no fuel is consumed when at a stop. When fitted with a coasting stop function, AS&G stops the engine while decelerating.

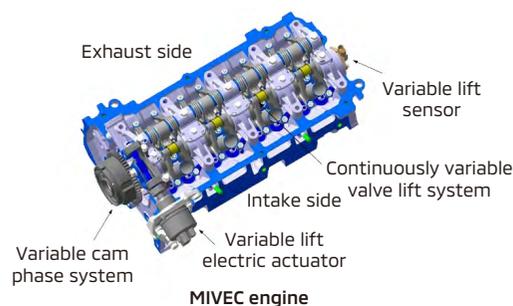


### Hybrid System

Vehicles in the eK series (except for the "ek Wagon") adopts a hybrid system, using the energy produced during deceleration to efficiently charge lithium-ion batteries. The electric motor assists the engine during acceleration, providing a torque yet fuel-efficient drive.

### Variable Valve Timing Mechanism

#### Mitsubishi Innovative Valve timing Electronic Control System (MIVEC)



The MIVEC is a variable valve timing mechanism for minimizing fuel consumption. The intake valve lift is continuously varied according to the operating condition to reduce intake resistance. This minimizes air intake energy loss, resulting in improved fuel efficiency.

### Gasoline Direct-Injection Turbo Engine

The "Eclipse Cross" adopts with a 1.5L downsized direct-injection turbo engine. By precisely controlling in-cylinder injection and intake port injection based on driving circumstances, this engine delivers superior fuel economy and a clean exhaust gas. By combining an exhaust manifold integrated with the cylinder head, intake and exhaust MIVEC, and a compact turbocharger with an electric wastegate actuator, the engine optimizes supercharging pressure control to respond as the driver demands, avoiding unnecessary accelerator operation and helping to increase fuel economy.



### Deceleration Energy Recovery (Power Generation Control)

This technology controls power generation under various driving conditions such as idling, accelerating, and cruising by conducting intensive charging of the battery using electric power generated while decelerating. This is improving fuel consumption by reducing the load on the engine during charging and power generation.

## System to Promote the Reduction of CO<sub>2</sub> Emissions from Business Activities

In October 2021, MITSUBISHI MOTORS established the Subcommittee to Promote the Reduction of CO<sub>2</sub>, chaired by the director in charge of manufacturing, to achieve the CO<sub>2</sub> emission reduction targets in its business activities set forth in the Environmental Targets 2030.

The subcommittee shares information on the progress of activity plans and actual CO<sub>2</sub> emissions, and discusses issues such as the planning of reduction measures, consideration of future technologies, and the future energy mix.

In April 2022, the company also established the Office for the Promotion of Carbon-Neutral Business Activities to promote activities throughout the Company.

### Organization of the Subcommittee to Promote the Reduction of CO<sub>2</sub>

<b>Chair</b>	Director in charge of manufacturing
<b>Person in charge of the initiative</b>	Division General Manager, Production Engineering Division
	In charge of promoting overall activities (Office for the Promotion of Carbon-Neutral Business Activities)
<b>Promotion structure</b>	
	Person in charge of promotion
<b>Production Engineering</b>	Division General Manager, Production Engineering Division
<b>Domestic plants</b>	Plant managers
<b>Overseas plants</b>	People in charge of production companies overseas
<b>Development (business sites)</b>	Division General Manager, Development Management Division
<b>Sales companies</b>	Presidents of sales companies
<b>Electricity procurement</b>	Division General Manager, Procurement Communication Division
<b>Gathering/sharing of information</b>	General Manager, Sustainability Promotion Department

## Introduction of Renewable Energy

To reduce the amount of CO<sub>2</sub> emitted from our business activities, we are setting up rooftop solar power system at plants in Japan and overseas. We are also studying and considering the feasibility of introducing other renewable energy sources.

In FY2021, we set up a 2.0 MW rooftop solar power system at the new paint plant of the Laem Chabang Plant of Mitsubishi Motors (Thailand) Co., Ltd. (MMTh). Preparations are also underway for the introduction of solar power generation equipment at production plants in other ASEAN countries, including Indonesia and the Philippines.

### TOPICS

#### Start of Operations of a New Paint Plant and Solar Power System (MMTh)

In January 2022, operations commenced at the new paint plant of Mitsubishi Motors (Thailand) Co., Ltd. (MMTh), substantially reducing its environmental impact.

The new paint plant is expected to save 30% of the energy required by the previous plant and reduce CO<sub>2</sub> emissions by approximately 10,000 tons per year, thanks to the elimination of some drying furnaces, owing to improvements in paint and equipment, the adoption of energy-saving equipment, and the effect of plant consolidation.

We have also introduced new technologies to reduce environmental impact. These include a wastewater recycling system using reverse osmosis treatment, and a move to water-based paints and cartridge-type coating machines to reduce VOC emissions.

In addition, a 2.0 MW solar power system has been installed on the roof of the new paint plant, which is expected to reduce CO<sub>2</sub> emissions by 1,700 tons per year.



Solar power system at MMTh's new paint plant

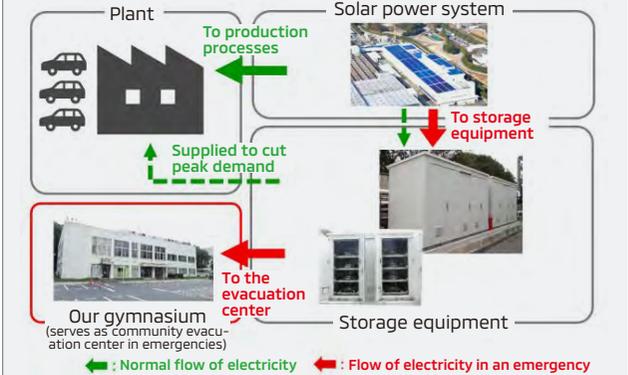
### TOPICS

#### Power Storage System Employing a Solar Power System and Used Batteries (Okazaki Plant)

At the Okazaki Plant, we have installed a 3.3 MW solar. We have also introduced a 0.6 MWh solar power system\* employing reused batteries from "Outlander PHEVs" produced at the plant.

The power storage system is used to cut peak loads during normal operations. In the event of a power outage due to a disaster, the power generated by the solar power system can be supplied via this power storage system to our gymnasium, which serves as an evacuation center for the neighboring community, thereby enabling the community to respond to the disaster. In FY2021, we conducted an operational test to confirm how the system would operate in the event of a disaster.

We are also studying how the power storage system might be used in multiple ways, such as commercial use in the electricity supply and demand adjustment market.



Power Storage System Employing Used Batteries

\* This system makes some use of an energy solution service provided by Mitsubishi Corporation and Mitsubishi Corporation Energy Solution.



Targets  
● 7.2  
● 7.3



Target  
● 9.4



Targets  
● 13.1  
● 13.2  
● 13.3

## Initiatives at Manufacturing Plants

To reduce CO<sub>2</sub> emissions from production activities, we have established a medium- to long-term roadmap for reducing CO<sub>2</sub> in each area of production technology—pressing, welding, painting, assembly and power-train—and we are developing future technologies and improving production processes to this end. We are also moving forward with the systematic replacement of general-purpose facilities including air conditioning and lighting, with energy-saving equipment.

As part of our initiatives in FY2021, on the equipment front we switched to steamless air conditioning

equipment, updated compressors and suspended the use of chip-cleaning equipment. On the activity system front, personnel involved with production sites, production engineering, power source management, and other related parties joined in energy-saving activities. These efforts included improving the start-up timing and operating conditions of production equipment in energy-intensive processes such as painting and casting and forging, improving the operation of power supply equipment such as boilers and compressors, and optimizing the operation of various motors and pumps. We are starting with measures expected to have the highest impact on reducing CO<sub>2</sub> emissions.

## Office Initiatives

MITSUBISHI MOTORS is also promoting the use of renewable energy and introducing various types of energy-saving equipment in areas other than manufacturing, such as at research and head office locations.

Part of the electric power used at the Research and Development Building (Okazaki, Aichi Prefecture) and our head office (Minato-ku, Tokyo) is supplied by renewable energy, thanks to the erection of rooftop solar power system and making use of the Tradable Green Certificates System\*. Also, CO<sub>2</sub> emissions are being reduced by using energy-saving electrical equipment and air conditioners.

In July 2020, we began tracking electricity use and power generation per capita at our Research and Development Building, comparing these figures with other offices, and using digital signage to show year-on-year comparisons by month. In these ways, we are working to increase employee awareness about saving energy.

TOPICS

### Introducing Heat-Pump-Heated Air Curtains (Okazaki Plant)

To save energy by reducing steam consumption, we installed 15 heat-pump-powered hot-water air curtains at the Okazaki Plant.

At the Okazaki Plant, we installed air curtains that use steam produced by a centralized boiler as their heat source at the plant openings to prevent cold air from blowing in during the winter. To improve energy efficiency for heating and prevent energy losses from the piping, we installed a heat pump to provide the hot water and switched the piping to dedicated air curtains. Installed in November 2021, the new system will reduce annual CO<sub>2</sub> emissions by around 574 tons.

Before introduction

After introduction

Impact of Introducing Heat-Pump-Heated Air Curtains



Digital signage at our Research and Development Building (Okazaki)

\* This system is used to trade environmental added value of renewable energy generated from natural energy sources using renewable energy certificates issued by a certificate issuer and confirmed by a third-party organization.



Targets  
● 7.2  
● 7.3



Target  
● 9.4



Targets  
● 13.1  
● 13.2  
● 13.3

## Dealer Initiatives

MITSUBISHI MOTORS encourages our dealers in Japan to acquire Eco-Action 21 certification and carry out activities such as reducing the amount of energy and water they use, lowering the amount of waste they produce, and promoting the widespread use of electrified vehicles.

Eco-Action 21 is an environmental management certification and registration system based on guidelines recommended by Japan's Ministry of the Environment. Eco-Action 21 has the following three features.

- The environmental management framework is easy for small and medium-sized businesses to configure and operate.
- The system enables organizations to track and manage their CO<sub>2</sub> emissions, working toward zero CO<sub>2</sub>.
- The system facilitates thorough management of compliance with environmental laws and regulations.

For details on Eco-Action 21, see the website of the system's central secretariat (Japanese only).

**WEB** <https://www.ea21.jp/>

## Dealers That Have Acquired "Eco-Action 21" Certification (As of April 1, 2022)

Company		
Hokkaido Mitsubishi Motor Sales Co., Ltd.	Nishiowari Mitsubishi Motor Sales Co., Ltd.	Kyushu Mitsubishi Motor Sales Co., Ltd.
Aomori Mitsubishi Motor Sales Co., Ltd.	Toyama Mitsubishi Motor Sales Co., Ltd.	Oita Mitsubishi Motor Sales Co., Ltd.
Yamagata Mitsubishi Motor Sales Co., Ltd.	Toyama Diamond Motors Co., Ltd.	Kumamoto Mitsubishi Motor Sales Co., Ltd.
Higashi Nihon Mitsubishi Motor Sales Co., Ltd.	Fukui Mitsubishi Motor Sales Co., Ltd.	Nagasaki Mitsubishi Motor Sales Co., Ltd.
Ibaraki Mitsubishi Motor Sales Co., Ltd.	Kanazawa Mitsubishi Motor Sales Co., Ltd.	Kagoshima Mitsubishi Motor Sales Co., Ltd.
Sawara Mitsubishi Motor Sales Co., Ltd.	Kyoto Mitsubishi Motor Sales Co., Ltd.	Ishikawa Chuo Mitsubishi Motor Sales Co., Ltd.
Sobu Mitsubishi Motor Sales Co., Ltd.	Nishi Nihon Mitsubishi Motor Sales Co., Ltd.	Mie Mitsubishi Motor Sales Co., Ltd.
Tokai Mitsubishi Motor Sales Co., Ltd.	Shiga Mitsubishi Motor Sales Co., Ltd.	Gunma Mitsubishi Motor Sales Co., Ltd.
Sunen Mitsubishi Motor Sales Co., Ltd.	Fukuyama Mitsubishi Motor Sales Co., Ltd.	

## TOPICS

### Rolling out the DENDO DRIVE STATION across Japan's Prefectures

MITSUBISHI MOTORS seeks to put DENDO DRIVE STATIONS into operation in prefectures across Japan. DENDO DRIVE STATIONS are next-generation dealerships where visitors can experience the appeal of electrified vehicles, including their use as power sources in times of disaster and their contribution to the environment.

In FY2021, we opened up three locations—Suwa (Nagano Prefecture), Urasoe (Okinawa Prefecture) and Okazaki Johoku (Aichi Prefecture)—bringing the number of locations in Japan to 92.

By deploying DENDO DRIVE STATION branches across Japan, we will increase the significance of electrified vehicles by diversifying their energy sources and communicating their value as sources of electric power in times of disaster.

See our website for details on our next-generation dealerships, called DENDO DRIVE STATIONS. (Japanese only)  
<https://www.mitsubishi-motors.co.jp/carlife/phev/dendo/index.html>



Suwa Branch  
Higashi Nihon Mitsubishi Motor Sales Co., Ltd.



Urasoe Branch  
Ryukyu Mitsubishi Motor Sales Co., Ltd.



Okazaki Johoku Branch  
Nishi Nihon Mitsubishi Motor Sales Co., Ltd.

## Physical Distribution

MITSUBISHI MOTORS sets reduction targets for reduction of CO<sub>2</sub> intensity (kg-CO<sub>2</sub>/1,000t km) in physical distribution emitted through the transport of production parts, spare parts and vehicles to promote initiatives for achieving these targets.

We continue working to shorten transport distances by changing the transit ports when trans-

porting vehicles. We are also improving truck filling ratio by adjusting the way we transport and combine cargo, using larger trucks to reduce the number of trips, and promoting joint transport and modal shifts in long haul. In addition, we are strengthening cooperation with our transportation partners and promoting activities to introduce eco-friendly vehicles and promote eco-driving.

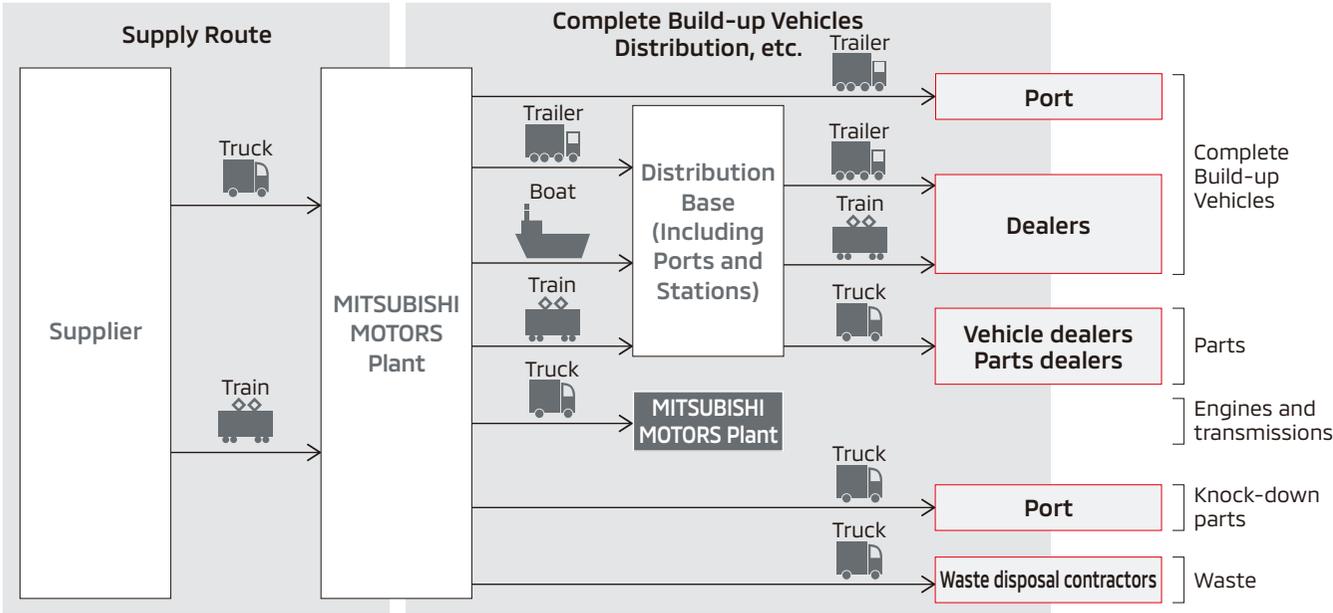
## Collecting CO<sub>2</sub> Emissions Data in Distribution among Overseas Affiliates

We understand the importance of collecting and disclosing CO<sub>2</sub> emissions volumes throughout the supply chain, including overseas, and we are promoting initiatives in this regard.

In 2018, we began collecting and monitoring data at overseas plants at Mitsubishi Motors (Thailand) Co., Ltd. (MMTh) and Mitsubishi Motors Krama Yudha Indonesia (MMKI). We are working to reduce CO<sub>2</sub> emissions through such efforts as improving the filling rate of shipping containers and conducting joint transportation with Nissan Motor Thailand, our alliance partner.

In FY2022, we expanded the scope of monitoring to include Mitsubishi Motors Philippines Corp. (MMPC), Asian Transmission Corporation (ATC) and Mitsubishi Motors Vietnam Co., Ltd. (MMV). We will start collecting data on CO<sub>2</sub> emissions and compiling results during local land transportation and marine and air transportation, as well as steadily promoting efforts to reduce CO<sub>2</sub>.

### Focused Distribution Routes for Reducing CO<sub>2</sub> Emissions



Vehicle transport in Thailand

## Resource Recycling Initiatives



### Medium- to Long-Term Visions for Material Issues and FY2021 Results

	Risks	Opportunities	Direction of Responses
Long Term	<ul style="list-style-type: none"> <li>● The cost of procuring raw materials could increase due to resource constraints, such as the depletion of precious metals or other natural resources.</li> <li>● The Company could face increasingly stringent regulations, such as on the use of recycled materials and recycling, and rising costs to respond to them.</li> <li>● The corporate image could suffer from a delayed response to resource recycling.</li> </ul>	<ul style="list-style-type: none"> <li>● We could stabilize procurement costs by reducing our dependence on depleted resources.</li> <li>● It might be possible to reduce costs by using resources more efficiently and reusing waste.</li> <li>● We could heighten competitiveness through 3R design and more advanced recycling technologies.</li> <li>● We could find more opportunities to make use of used batteries.</li> <li>● The corporate image could be enhanced by appealing to our efforts to contribute toward a recycling-oriented society.</li> </ul>	<ul style="list-style-type: none"> <li>● We will contribute to a resource-recycling-oriented society by minimizing input resources and maximizing resource efficiency.</li> </ul>

	External Environment	Stakeholders' Needs and Expectations	Medium-Term Targets
Medium Term	<ul style="list-style-type: none"> <li>● An increasing shift toward a circular economy</li> <li>● The manifestation of waste-related issues in Japan and overseas (such as emerging markets limiting imports)</li> <li>● The increasingly strict EU Batteries Regulation (calls for disclosure of amounts of reused materials, among other items)</li> <li>● Plastics causing the marine pollution problem</li> </ul>	<ul style="list-style-type: none"> <li>● Mounting demands for environmental consideration</li> <li>● Growing ESG investment (investors promoting changes in corporate activities)</li> </ul>	<ul style="list-style-type: none"> <li>● Expanding adoption of plastic materials not derived from oil</li> <li>● Achievement of zero direct landfill waste (less than 0.5%)</li> <li>● Reuse of batteries used in electrified vehicles</li> </ul>

Items	FY2021 Targets and Results	Self-Evaluation
Expanding adoption of plastic materials not derived from oil	Finished assessing products to adopt plastic materials not derived from oil. Achieved FY2021 target in line with roadmap.	○
Achievement of zero direct landfill waste (less than 0.5%) by FY2030	Plants in Japan: Achieved zero direct landfill waste (less than 0.5%) Overseas plants: Have begun managed operations of data on waste using an environmental performance management system	○
Reuse of batteries used in electrified vehicles	Installed equipment for verification testing of BESS*1 at the Okazaki Plant, conducted a VPP*2 verification test, verified the benefits of a cut in peak electricity consumption and established an effective operation method	○

○: As planned △: Delayed

\*1: BESS stands for battery energy storage system.

\*2: VPP stands for virtual power plant, which involves using information and communication technology for the integrated control of dispersed energy resources, creating a virtual plant that operates as if it were a single power plant.

## Basic Approach

The rise in populations and economic growth in emerging markets is leading to a rise in the consumption of minerals, fossil fuels and other resources.

Against this backdrop, MITSUBISHI MOTORS is working to use fewer resources and use them more effectively. We believe we can add more value to vehicles in manufacturing process. This belief underpins our belief that effective resource use is an important priority. The Environmental Plan Package positions resource recycling as an environmental issue to engage in directly, and we are contributing to a resource-recycling-oriented society by minimizing input resources and maximizing resource efficiency.

Countries and industry groups are formulating various initiatives in order to promote automobile recycling and correct processing. In response, the Company set targets to improve the ease of recycling, reduce the use of lead, and introduce recycled parts for new vehicles when the MITSUBISHI MOTORS Recycling Initiative was established in 1998. We have continued to engage in this initiative.

At production plants, with the aim of realizing a recycling-oriented society that gives consideration to the environment and resources, we are promoting the effective use of resources. We are achieving a landfill waste disposal rate of zero (less than 0.5%) at every plant by converting industrial waste materials generated from production processes into reusable resources and reducing the volume of waste discharged.

▶ Data (p. 122): Generated waste, generated waste and externally disposed waste (MITSUBISHI MOTORS along), raw material inputs

## Recycling-Based Design and Development

Under vehicle recycling legislation in Japan, Europe and China, automobile manufacturers are obligated to consider recycling when developing products.

We conduct design and development that actively incorporates not just recycling, but all aspects of the 3Rs including reduction and reuse. We have implemented the 3Rs in the stage starting with conceptual design in accordance with our unique Recycling Plan Guidelines.

With regard to wires and harnesses, and motors, we have improved detachability and ease of recycling in accordance with the Harness Design Guidelines.

At dealers, bumpers recovered or replaced during repairs are recycled for battery trays and other exterior parts. We are also promoting the increased use in other parts of recycled materials and plastic materials not derived from oil used in vehicles, such as biomass plastics.

### TOPICS

#### Using Thermoplastic Resin

The All-New "Outlander PHEV Model," which was launched in 2021, uses easily recyclable thermoplastic resin for exterior and interior parts.

#### Main parts (indicated in green) that use thermoplastic resin



Exterior



Interior



## End-of-Life Vehicle Recycling

MITSUBISHI MOTORS encourages the recycling of end-of-life vehicles to reduce the environmental impact of waste from these vehicles. In Japan, the European Union and other regions, we promote recycling in accordance with the automobile recycling laws of each country. We comply carefully with the evolving automobile recycling laws that are being introduced in emerging countries in Asia.

The Environmental Targets 2030 identify the reuse of batteries used in electrified vehicles as one item to be addressed. From the perspective of conserving resources, we are undertaking initiatives to utilize used batteries.

### Reuse of Batteries Used in Electrified Vehicles

Used electrified vehicle batteries retain sufficient storage capacity to make them useful for other applications, so from the perspective of conserving resources we are working to effectively reuse electrified vehicle batteries. To ensure these batteries can be effectively used for storage, we are conducting verification using a large-scale rooftop solar power system at the Okazaki Plant and built a power storage system that employs used batteries from the "Outlander PHEV."

With MIRAI-LABO Co., Ltd., we have begun considering the development of autonomous street lighting by reusing batteries from electrified vehicles. These

lights would require no external power supplies, but would use solar power, used batteries from electrified vehicles and recycled steel. In the event of disaster or power failure, such street lights would continue to function and would not need to be turned off. We are planning to develop these lights in FY2022 and conduct demonstration tests with municipalities and companies from FY2023.

In Japan, Europe and North America, we have begun creating a system for collecting used batteries. The aim is to develop recycling technologies for and properly dispose of batteries for electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs).

### Response to Automobile Recycling Laws in Japan

Since the End-of-Life Vehicle Recycling Law was enacted in Japan in 2005, the company has been accepting used automobile shredder residue (ASR<sup>\*1</sup>), airbags, and fluorocarbons for recycling.

Regarding ASR recycling, we participate in ART<sup>\*2</sup> in order to jointly process ASR. As a result of the creation of new processing facilities and other measures, the ASR recycling rate in FY2021 was 96.5%, substantially above the statutory standard of 70% in effect since 2015. We will continue to develop new recycling facilities to ensure the stable processing of ASR.

The company outsources the treatment of airbags and fluorocarbons to the Japan Auto Recycling Partnership (JARP).

In addition, for the effective use of recycling fees deposited from customers, we proactively work on increasing the recycling rate by conducting efficient recycling and proper processing of these three items.

The Company accepts for recycling three items identified by Japan's End-of-Life Vehicle Recycling Laws (fluorocarbons, airbags and ASR). As part of a project to support the advancement of automobile recycling, we have engaged in the following two R&D projects since August 2021.

- 1) Research to restore the physical properties of PP resin<sup>\*3</sup> recovered from ASR and expand the use of plastic materials not derived from oil
- 2) In the aim of realizing a low-carbon society, research to verify the applicability of technology to diagnose battery degradation, quickly and to a high degree of accuracy, that can facilitate the reuse and closed-loop utilization of drive batteries

We have joined the LiB Joint Recovery System and begun working to efficiency recovery lithium-ion batteries (LiBs). The system serves as contact point for the Japan Auto Recycling Partnership, which the Japan Automobile Manufacturers Association, Inc. set up in FY2018 to foster the appropriate processing of LiBs.

<sup>\*1</sup> Automobile shredder residue

<sup>\*2</sup> Automobile Shredder Residue Recycling Promotion Team established by 13 companies, including Nissan Motor Co., Ltd., Mazda Motor Corporation and MITSUBISHI MOTORS.

<sup>\*3</sup> Polypropylene resin, a general-purpose polymer composed of carbon and hydrogen

## Recycling Promotion in the EU

### Response to the EU's Directive on the Recycling of End-of-Life Vehicles

In the EU, in accordance with the End-of-Life Vehicles Directive\*1 established in 2000, automobile manufacturers or importers must accept and recycle end-of-life vehicles. Also, in 2003, the ELV Directive\*2 was enacted, specifying ease of recycling as a certification requirement.

MITSUBISHI MOTORS built a system of acceptance and recycling in line with the actual situation of EU member countries centering on our European subsidiary Mitsubishi Motors Europe B.V. (MME).

\*1 "Directive of the European Parliament and of the Council on End-of-Life Vehicles"

\*2 Abbreviation of End-of-Life Vehicles.

### Provision of Dismantling Information

In the EU, automobile manufacturers must provide dismantling information for new model vehicles to treatment operators. The company provides such information on a timely basis by using the International Dismantling Information System (IDIS) jointly developed by automobile manufacturers.

### Response to the EU's Directives on Approval for Vehicle Models for Recyclability

In the EU, satisfying the minimum 95% recyclability rate is a requirement for type approval of vehicle models, and the company established a system that satisfies the requirements of this directive. Our vehicles sold in the EU meet the requirements of the directive under this system.

Going forward, we will continue to acquire recyclability approval for all new models sold in the EU.

## Initiatives to Reduce Waste Generation and Reuse Resources in Production Activities

To achieve "landfill waste disposal rate of zero (less than 0.5%)," which is one of the Environmental Targets 2030, the Company is working to reduce the amount of waste it generates through manufacturing by improving its production processes. For the waste we do generate, while curtailing treatment costs we continue to improve the ways in which we sort and treat waste, using it more effectively as resources.

### Effective Use of Resources and Recycling



## TOPICS

### Reducing Environmental Impact by Eliminating the Process of Cleaning Cushioning Materials Used in Melting Furnaces Used for Casting (Mizushima Plant)

By changing the cushioning materials\*4 used in melting furnaces for casting from metal chips produced in the cutting process to sheet metal scrap, we have eliminated the chip cleaning process, reducing industrial waste and CO<sub>2</sub> emissions.

To use chips as cushioning materials, a cleaning process was required to remove oil and moisture. This process had a high environment burden, because it generated waste liquids and sludge and used substantial energy for steam and heaters.

By improving the material separation and transport methods, as well as the component analysis process, we were able to use sheet metal scrap an alternative, which meant we could eliminate the chip cleaning process. As a result, we reduced annual industrial waste by approximately 290 tons and CO<sub>2</sub> emissions by around 135 tons.

\*4 Material that is used in small quantities on the furnace floor to protect the melting furnace from shocks when feeding material



Feeding in materials into a melting furnace used for casting

## Prevention of Pollution



Target  
● 3.9



Target  
● 6.3



Targets  
● 12.4  
● 12.5

### Medium- to Long-Term Visions for Material Issues and FY2021 Results

	Risks	Opportunities	Direction of Responses
Long Term	<ul style="list-style-type: none"> <li>● The cost of managing hazardous substances could rise if regulations are become more stringent in response to increased damage to human health and the loss of ecosystems.</li> <li>● The company could become subject to fines or sanctions in the event of a serious leak into the air or water.</li> <li>● Environmental problems at a supplier could disrupt the supplier's operation and halt our parts procurement.</li> <li>● The Company's image could suffer in the event of a delayed response to initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>● We could reduce costs through more efficient management, including of the supply chain.</li> <li>● By reinforcing management, including of the supply chain, we could supply products that deliver reassurance and safety, as well as maintaining competitiveness.</li> <li>● Managing in accordance with standards more rigorous than those imposed by regulations could enhance the corporate image.</li> </ul>	<ul style="list-style-type: none"> <li>● We will contribute toward a society free of environmental pollution by reducing the environmental impact of our products and the pollution resulting from our business activities.</li> </ul>

	External Environment	Stakeholders' Needs and Expectations	Medium-Term Targets
Medium Term	<ul style="list-style-type: none"> <li>● Increasingly stringent regulations on emissions in various countries and regions</li> <li>● Increasingly stringent regulations on chemical substances in various countries and regions</li> <li>● Increasingly stringent regulations on the export and import of hazardous waste (plastic waste)</li> </ul>	<ul style="list-style-type: none"> <li>● Growing interest in environmental consideration</li> <li>● Growing ESG investment (investors promoting changes in corporate activities)</li> </ul>	<ul style="list-style-type: none"> <li>● Conformance to regulations on hazardous substances in products</li> </ul>

Items	FY2021 Targets and Results	Self-Evaluation
Properly manage hazardous substances in products	Properly manage hazardous substances: We are obtaining information on GADSL* regulated substances, upgrading our management system, and switching parts and making design changes in accordance with the ELV directive.	○

○: As planned    △: Delayed

\* Global Automotive Declarable Substance List, a list to facilitate the exchange of information on environmentally hazardous substances, created by consensus of a group of automotive manufacturers in various countries

### Basic Approach

Vehicles are products that can affect human health and biodiversity through the emission of environmental pollutants and chemical substances during business activities or product use.

Our Environmental Plan Package positions this issue as one for the Company to address directly. To

help realize a society free of environmental pollution, we are working to reduce the environmental impact of our products and pollution resulting from our business activities. In the stage of product development, along with reducing noxious components of exhaust gases and promoting the development of fuel economy improving technologies and electrification technologies, we strive to manage to hazardous sub-

stances. In production processes, we are endeavoring to reduce air pollutants emitted from our plants by voluntarily enacting activity standards that are stricter than legal requirements. In order to reduce the impact on the environment from air pollutants and chemical substances, we engage in the prevention of pollution throughout all our business activities.

Target  
3.9Target  
6.3Targets  
12.4  
12.5

## Purifying Exhaust Gas while Driving

Vehicles powered by gasoline and diesel engines inevitably emit combustion gases from the engine while driving. These exhaust gases contain hazardous substances that can cause air pollution.

In addition to developing and popularizing electrified vehicles, which emit little exhaust while driving, MITSUBISHI MOTORS is endeavoring to develop and encourage the use of gasoline and diesel vehicles that have emissions containing fewer hazardous substances.

### Improving Gasoline Engine Vehicles

In the 1960s, emissions of carbon monoxide, hydrocarbons and nitrogen oxides (NOx) were restricted by regulations, and those restrictions have gradually been tightened since.

We have taken various measures since such regulations were first introduced. We currently comply with these regulations by applying electronically controlled fuel injectors and advanced catalyst technologies to the combustion control system.

### Improving Diesel Engine Vehicles

For diesel engine vehicles, emissions of carbon monoxide, hydrocarbons, NOx, and particulate matter have been regulated in some countries, such as Japan, United States and European countries, since the 1970s.

Since such regulations were first introduced, we have taken measures including improving the combustion technology. To comply with these regulations, we have developed and produced clean diesel engines by systemizing technology such as VG turbochargers, controlling combustion with a common rail fuel injection system, introducing after-treatment using NOx trap catalysts, diesel particulate filters and a urea selective catalytic reduction (SCR) system.

### Clean Diesel Engine Systems

#### VG\* Turbocharger

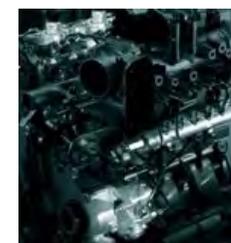
By controlling the turbine capacity by opening and closing the variable nozzle installed on the turbine side, the VG turbocharger helps to improve fuel economy and suppress emissions of particulate matter through optimum supercharging across the engine's operating range.

\* Variable geometry



### Common Rail Fuel Injection System

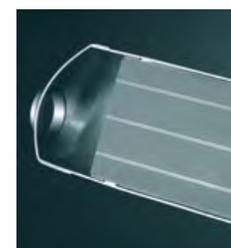
Particulate matter and NOx can be generated due to incomplete combustion. In our vehicles, this is suppressed using a high-pressure fuel pump, common rail accumulator that stores highly pressurized fuel, and electronically controlled fuel injectors.



### Diesel Particulate Filter (DPF)

A DPF, a filter that removes particulate matter by collecting and burning it, substantially reduces emissions of particulate matter.

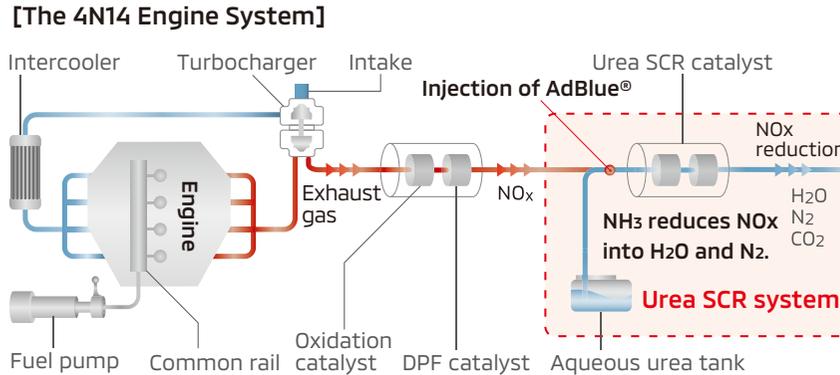
Please see page 52 for a Diagram of the 4N14 Engine System, which includes a DPF.



### Urea Selective Catalyst Reduction (SCR) System

Nitrous oxides (NOx) from diesel engines' emissions are purified using an aqueous urea solution (Ad-Blue<sup>®</sup>), breaking them down into non-polluting nitrogen and water.

\*1 A registered trademark of Germany's Verband der Automobilindustrie (VDA)



### Reduction of Hazardous Substances

In accordance with the reduction targets of the Japan Automobile Manufacturers Association, Inc. (JAMA) and the EU's end-of-life vehicles directive (a recycling law), MITSUBISHI MOTORS is working to reduce the use of four substances (lead, mercury, cadmium, and hexavalent chromium). We have established internal technical standards to voluntarily reduce hazardous substances. We are also taking measures to comply with regulations on the use of hazardous substances in each country in compliance with the REACH regulation<sup>\*3</sup> concerning substances and the Convention on POPs<sup>\*4</sup>.

At present, in addition to four substances and other heavy metals, the use of VOCs (volatile organic compounds), bromine-based flame retardants and various other substances is regulated. Regulations similar to European ones are being enforced in developing countries in Asia as well.

We are working to voluntarily reduce hazardous substances by setting internal technical standards.

\*3 REACH stands for "Registration, Evaluation, Authorisation and Restriction of Chemicals." Enacted on June 1, 2007, the REACH regulation is a general system to register, evaluate, authorize and restrict the use of substances

\*4 Persistent Organic Pollutants  
 ►Data (p. 121): Emissions of Sulfur Oxide, Nitrogen Oxide, VOC (Volatile Organic Compounds) and Ozone-Depleting Substances

#### TOPICS

### The 2.5L Gasoline Engine on the "Outlander" for North America

The All-New "Outlander," which launched in North America in April 2021, is equipped with an inline direct injection four-cylinder DOHC 2.5L engine. The engine is designed for low fuel consumption, smooth driving and enjoyably agile acceleration.



This newly developed engine, which was developed through the alliance with Nissan, achieves emission gas level LEV III-SULEV30<sup>\*2</sup>. By using the items described right column, the engine performs on both the output and fuel economy.

\*2: SULEV stands for Super Ultra Low-Emission Vehicles in the classification for emission in California, U.S.

- 1. Mirror bore coating**  
A mirror bore coating is used on the surface of the cylinder wall. The mirror-like finish helps to reduce friction loss.
- 2. Variable tumble control valve**  
A variable tumble control valve is used to optimize the flow of air drawn into the combustion chamber. In-cylinder flow is increased as a result, promoting rapid combustion, thereby reducing emissions and improving fuel economy, while enhancing acceleration response.
- 3. Electric variable valve timing (VVT) mechanism**  
An electric intake VVT is used to optimally control intake valve timing and provide superior responsiveness. On the exhaust side, a VVT with an intermediate lock is used, with individual valve timing optimized to achieve low emissions and improved fuel economy.
- 4. Variable capacity oil pump**  
A variable capacity oil pump optimizes the control of oil pressure according to driving conditions, thereby reducing friction loss and helping to improve fuel economy.



Target 3.9



Target 6.3



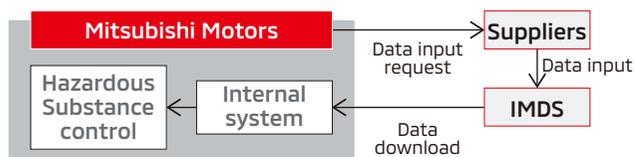
Targets 12.4, 12.5

## Management of Material Data by IMDS

Data on the hazardous substances contained in vehicle parts delivered by suppliers are collected by the International Material Data System (IMDS), an international system for collecting such data. Together with overseas plants such as Mitsubishi Motors (Thailand) Co., Ltd. (MMTh), we utilize the collected data under a globally centralized internal system for reducing hazardous substances.

In cooperation with suppliers, we are complying with the REACH regulation, a general system for the registration, evaluation, authorization, and restriction of substances used in the EU.

### Flow of Data Collection through IMDS



## Reduction of In-Cabin VOCs

To provide customers with a healthy and safe cabin space, MITSUBISHI MOTORS works to reduce volatile organic compounds (VOCs) inside the cabin.

VOCs are organic compounds that are easily volatilized at room temperature such as formaldehyde and toluene. These compounds are thought to cause sick building syndrome, and may irritate the eyes, nose, and throat. In an automobile cabin, they are mainly generated by adhesives and paint used in interior parts.

Please see the JAMA website for details regarding the Voluntary Guidelines.

[WEB](http://www.jama-english.jp/release/release/2005/050214.html) <http://www.jama-english.jp/release/release/2005/050214.html>

### Progress

We are working to reduce in-cabin VOCs by developing materials with low VOC emissions and technologies to reduce VOCs generated inside the cabin.

### Example of Measures to Reduce VOCs

<b>Carpet</b>	Reduced aldehydes in pile adhesives
<b>Seat</b>	Reduced organic solvents in fabric adhesives
<b>Ornaments</b>	Reduced VOCs by using spun-dyed high-gloss interior parts
<b>Air-conditioner</b>	Reduces VOCs with clean air filter with deodorizing function

## Preventing Air Pollution

### Reduction of VOC Emissions from Production Processes

We are applying the waterborne 3WET paint method\* to its painting process to reduce VOC emissions. In Japan, we use this method at the Mizushima Plant and the Okazaki Plant. Overseas, the system is used on the No. 3 paint line at Mitsubishi Motors (Thailand) Co., Ltd. (MMTh).

We are also upgrading our robotic and other painting systems, reducing the amount of paint used by adjusting production lots and increasing the amount of used thinner we recover. Through these moves, we are reducing VOC emissions from vehicle production.

\* With this method, water-soluble paints are used for the middle and top coats. Solvent-based paint is used only for the clear overcoat.  
▶ Data (p. 121): VOCs (volatile organic compounds)



New paint plant (MTh)



## Management of Air Pollutants

MITSUBISHI MOTORS follows laws and regulations to manage the concentrations and amounts of such air pollutants as nitrogen oxides (NOx), sulfur oxides (SOx) and soot emitted in production processes.

We are also working to reduce NOx and SOx emissions. To lower NOx emissions, we are installing low-NOx boilers and low-NOx burners at the time of equipment upgrades. To reduce SOx emissions, we use low-sulfur kerosene or natural gas to fuel boilers and other equipment.

## Management of Chemical Substances

### Appropriate Management of Chemical Substances

We have introduced a chemical substance management system for using chemical substances. Before deploying substances, we examine their physical and chemical properties and the details of usage plans, as well as legal requirements, conduct risk assessments, judge whether they can be used and educate workers. We also use this system to conduct centralized management of the most recent Safety Data Sheet (SDS) information. In addition, we use data from this system to ascertain the quantity of PRTR\*1 substances used and report on their usage and emissions, as well as other aspects of legal compliance.

We will continue to manage chemical substances appropriately to ensure both occupational health and safety and pollution prevention.

\*1 This convention stipulates international frameworks and procedures related to restrictions on the movement of certain types of waste across national boundaries.

## Appropriate Management of Hazardous Waste

We manage hazardous waste to avoid importing or exporting hazardous waste that is restricted by the Basel Convention on the Control of Transboundary Movements of Hazardous and Their Disposal\*2.

We also transport and treat waste produced in Japan appropriately, based on various legal requirements.

\*2 This convention stipulates international frameworks and procedures related to restrictions on the movement of certain types of waste across national boundaries.

## Appropriate Management of Waste Containing PCBs

Harmful polychlorinated biphenyls (PCBs) are contained as insulation oil in transformers and condensers that were manufactured a long time ago. We process waste containing PCBs appropriately, in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Waste.

## Conservation of Water Resources



### Medium- to Long-Term Visions for Material Issues and FY2021 Results

	Risks	Opportunities	Direction of Responses
Long Term	<ul style="list-style-type: none"> <li>Water shortages and water pollution could raise the uncertainty and cost of securing water resources.</li> <li>Flooding and other damage arising from climate change could halt operations and reduce earnings.</li> <li>We could face higher costs in response to increasingly stringent regulations on water withdrawal and discharge.</li> </ul>	<ul style="list-style-type: none"> <li>We could lessen the impact of water stress by reducing our dependence on water resources.</li> <li>We could reduce costs by reducing water use and increasing the water reuse rate.</li> </ul>	<ul style="list-style-type: none"> <li>Based on the impact climate change, resource extraction and pollution have on water resources (concentrated rainfall, droughts, water pollution and water shortages), we will address these issues, helping to reduce water risk and preserve water resources.</li> </ul>

	External Environment	Stakeholders' Needs and Expectations	Medium-Term Targets
Medium Term	<ul style="list-style-type: none"> <li>Climate change resulting in extreme weather events, resulting in environmental changes and increasingly severe water shortages</li> <li>Growing populations and urban development in emerging markets exacerbating water pollution</li> <li>Plastics causing marine pollution</li> </ul>	<ul style="list-style-type: none"> <li>Mounting demands for environmental consideration</li> <li>Growing ESG investment (investors promoting changes in corporate activities)</li> </ul>	<ul style="list-style-type: none"> <li>Promote climate change countermeasures and initiatives targeting resource recycling and pollution prevention</li> <li>Manage the amount of water used based on water risks at each production facility, and monitor the quality of discharged water</li> </ul>

Items	FY2021 Targets and Results	Self-Evaluation
Manage water risks at each production facility	Completed facility for processing sewage and domestic waste water at the Mizushima Plant Commenced operation of a wastewater recycling plant at Mitsubishi Motors (Thailand) Co., Ltd. (MMTh)	○

○: As planned △: Delayed

## Basic Approach

Due to the increasing population and changes in the natural environment caused by climate change, the demand for water in specific areas is expected to grow tighter, and social concern for the preservation of water resources are increasing.

MITSUBISHI MOTORS requires a large amount of industrial water, city water, and groundwater, etc., for the automobile production process and discharge of water into sewage lines and rivers, etc. In regions where water risk is high, it is essential to consider the impact that water withdrawal and discharge from our business activities have on the surrounding environment.

At business sites, we comply with various legal requirements, such as on the quality of discharged water. In addition, we work to reduce water withdrawal amounts and introduce water recycling technologies based on the status of water resource management in individual countries and regions.

Also, as water is required for the operations of our business partners. We are aware of the importance of water risk management throughout the entire value chain.

## Water Withdrawal Source and Drainage of Each Plant

Plant	Water Withdrawal Source	Drainage
<b>Okazaki Plant (Okazaki, Aichi Pref.)</b>	Yahagi River	Kanda River Tributary → Kanori River
<b>Kyoto Plant –Kyoto (Kyoto, Kyoto Pref.)</b>	Lake Biwa	Sewage line
<b>Kyoto Plant –Shiga (Konan, Shiga Pref.)</b>	Lake Biwa	Sewage line
<b>Mizushima Plant (Kurashiki, Okayama Pref.)</b>	Takahashi River	Hakken River → Mizushima Port
<b>Pajero Manufacturing Co., Ltd. (Sakahogi-cho, Gifu Pref.)</b>	Kiso River	Kiso River
<b>Mitsubishi Motors (Thailand) Co., Ltd. (MMTh)</b>	Nong Pla Lai Reservoir, etc.	Sewage line
<b>Mitsubishi Motors Krama Yudha Indonesia (MMKI)</b>	Lake Jatiluhur	Sewage line

## Reduction of Water Withdrawal Volume

We are striving to reduce water withdrawal volumes by reusing washing water used in production processes for pre-washing and by circulating cooling water and temperature control water.

At the Okazaki Plant and at MMKI, we have set up rainwater storage tanks in order to reuse rainwater.

At the Okazaki Plant, we have also set up equipment to filter groundwater so that it can be used to supply drinking water during disasters to employees and people nearby the plant.

▶ Data (p. 122): Withdrawn water volume



Rainwater storage tanks (Okazaki Plant)



Groundwater membrane filtration equipment (Okazaki Plant)

## Reuse of Discharged Water

The MITSUBISHI MOTORS Group has introduced wastewater recycling technology based on the local water resource management conditions at each of its business sites.

We set up a wastewater recycling plant at Mitsubishi Motors Krama Yudha Indonesia (MMKI) when the plant was established. In FY2021, the wastewater recycling rate was 58%.

In January 2022, a wastewater recycling plant commenced operation at Mitsubishi Motors (Thailand) Co., Ltd. (MMTh), coinciding with the start of operations at a new paint factory. Based on our experience at MMKI, we aim to achieve an even higher recycling rate.

▶Data (p. 122): Wastewater volume



Wastewater recycling plant (MMTh)

## Prevention of Water Pollution

To prevent water pollution in areas surrounding plants, we measure and manage the quality of discharged water based on legal requirements. We also conduct surveys and confirmations regarding the quality of groundwater and soil pollution. In this way,

we confirm that no toxic substances are being discharged to the outside area. In order to quickly detect abnormalities in discharge water quality due to such factors as rainfall, we set up a surface oil detector\*1 in front of outlets leading from the plant to public water and continuously monitor discharge water conditions. We carry out continuous monitoring so that water discharged from the plant does not affect the environment outside the site. In the event of an accident, we respond quickly to prevent pollution from spreading, report to the local authorities and disclose information to the community.

At the Mizushima Plant, we are stepwise upgrading equipment for processing discharged water that has deteriorated over time. In FY2021, we completed and commenced operations at an upgraded facility for processing domestic waste water emitted from offices.

\*1 Detects the presence of oil by capturing changes in reflectance as the reflectance of oil is greater than that of water.



Observation well (Okazaki Plant)



General effluent treatment facilities (Okazaki Plant)



Surface oil detector (Okazaki Plant)

### TOPICS

#### Upgrading Sewage and Domestic Waste Water Treatment Facilities (Mizushima Plant)

At the Mizushima Plant, we are gradually upgrading waste water treatment facilities that have deteriorated over time. As a first step, in FY2021 we completed a sewage and domestic waste water treatment facility, which commenced operations in July 2022.

This facility collectively treats sewage and domestic waste water from septic tanks, cafeterias and hand washing stations at the Mizushima Plant. This upgrade involved the introduction of a membrane treatment system\*2 to reduce the maximum value of pollutants to less than 1/10th and stabilize the treated water quality.

With a view to completion at the end of FY2022, we are proceeding with related construction work, such as upgrading the primary treatment facility for industrial wastewater and sludge dewatering equipment, and installing a centralized monitoring and control system.

\*2 A device that removes pollutants by filtering wastewater through microscopic pores



Sewage and domestic waste water processing facility (Mizushima Plant)

## Preservation of Biodiversity



### Medium- to Long-Term Visions for Material Issues and FY2021 Results

	Risks	Opportunities	Direction of Responses
Long Term	<ul style="list-style-type: none"> <li>● The loss of ecosystems could lead to environmental changes that raise the uncertainty and cost of procuring resources.</li> <li>● Land use for business operations could cause ecosystem losses, reducing our corporate image.</li> </ul>	<ul style="list-style-type: none"> <li>● Prevent resource procurement uncertainties and rising procurement costs</li> <li>● Prevent a decline in the corporate image by alleviating and recovering from the impact on ecosystems due to land use for business operations</li> </ul>	<ul style="list-style-type: none"> <li>● Based on the impact climate change, resource extraction and pollution have on the ecosystem (species extinction and change, reductions and disappearance of habitat and migratory regions), we will address these issues to help reduce ecosystem losses.</li> <li>● Enact measures that are in harmony with local biodiversity.</li> </ul>

	External Environment	Stakeholders' Needs and Expectations	Medium-Term Targets
Medium Term	<ul style="list-style-type: none"> <li>● Enhanced international conservation in accordance with an assessment report published in May 2019 by IPBES*<sup>1</sup></li> <li>● Consideration on adopting a "post-2020 biodiversity framework" at the 15th Conference of the Parties to the UN Convention on Biological Diversity scheduled for 2022</li> </ul>	<ul style="list-style-type: none"> <li>● Mounting demands for environmental consideration</li> <li>● Growing ESG investment (investors promoting changes in corporate activities)</li> </ul>	<ul style="list-style-type: none"> <li>● Promote climate change countermeasures and initiatives targeting resource recycling and the prevention of pollution</li> <li>● Promote community-based initiatives to address environmental issues</li> </ul>

Items	FY2021 Targets and Results	Self-Evaluation
Promote preservation activities that leverage the results of ecosystem surveys at locations in Japan	Nurture and protect indigenous species at business sites in Japan: At the Kyoto Plant, continued to manage a biotope* <sup>2</sup> and cultivated rare aquatic plants At Kyoto Plant-Shiga, engaged in wetland conservation and cultivation of rare white egret flower Conduct tree-planting and cultivation activities in Japan and overseas: Planted and cultivated trees at Pajero Forest (Yamanashi Prefecture) Conducted an afforestation project in Thailand	○

○: As planned △: Delayed

\*1 IPBES: the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

\*2 A biotope is a space where organisms can live in natural surroundings.



## Basic Approach

All living things are intricately connected in various relationships and live in balance. We benefit from this biodiversity in our lives.

MITSUBISHI MOTORS both directly and indirectly impacts on biodiversity due to land use (including the construction of plants), the release of chemical substances from plants, and the greenhouse gas emitted from the use of the company's products and business activities. Meanwhile, climate change is transforming regional environments, which has a major direct impact on ecosystems. We believe it is a priority to enact climate change countermeasures, protecting biodiversity so that we can continue to enjoy its blessings.

The company formulated the "MITSUBISHI MOTORS Group Guidelines for the Preservation of Biodiversity" in August 2010 and promotes conservation activities.

None of our business sites in Japan are located in or adjacent to protected areas according to the Nature Conservation Act and prefectural codes. However, we conducted surveys on ecosystems in order to understand the impact our business activities have on biodiversity.

We are collaborating with OISCA to preserve forests in Hayakawa-cho, Yamanashi Prefecture, while interacting with the local community through volunteer employee activities. These activities aim to protect metropolitan water sources and spread awareness of the environment among our employees.

We are also promoting preservation activities at affiliated companies overseas.

## MITSUBISHI MOTORS Group Guidelines for the Preservation of Biodiversity

The MITSUBISHI MOTORS Group will continue to track and reduce its impact on biodiversity, recognizing that the activities of humankind can both benefit from and affect the diversity of living organisms. To this end, the entire Group will take on initiatives for preventing global warming and environmental contamination, and promote the recycling and efficient use of resources, while engaging in activities that pay consideration to biodiversity.

### 1. Consideration to biodiversity in business activities

We will track and reduce the impact of business activities on biodiversity by conserving energy, reducing the generation of waste, and curtailing the release of chemicals. At the same time, we will also pay consideration to neighboring communities when making use of land for factory construction and other purposes.

### 2. Consideration to biodiversity in products

We will promote fuel efficiency, exhaust gas countermeasures and recycling-friendly design of our products, while striving to select and use materials that pay consideration to the environment.

### 3. Education, understanding and self-awareness

We will continue to educate the entire Group from management to employees on the front lines to share a common understanding and develop a self-awareness of the relationship between business activity and biodiversity.

### 4. Cooperation and collaboration with society

These activities will be promoted in cooperation with all stakeholders including the supply chain, stockholders, local governments, local communities, non-profit organizations (NPOs) and non-governmental organizations (NGOs).

### 5. Information disclosure

We will strive to disclose and disseminate the content and results of these activities to customers and local communities.

## Promoting Preservation Activities by Utilizing Ecosystem Surveys at Domestic Business Sites

### Ecosystem Surveys at Business Sites in Japan

Production of vehicles requires largescale plants. We believe that assessing the impact that the use of land in company business has on local biosystems is important to our biodiversity protection initiatives. Based on this concept, we conducted ecosystem surveys at our domestic business sites with largescale land, such as our factories with support from consultancies related to biodiversity. Ascertaining biosystems not only in domestic business sites but also in the surrounding environment by means of field surveys and documentary research leads to maintenance measures that are in harmony with local biodiversity.

### Locations Where Ecosystem Surveys Were Conducted

Fiscal Year	Location
2013	Kyoto Plant-Shiga
2015	Okazaki Plant
2017	Mizushima Plant/Kyoto Plant-Shiga*
2018	Tokachi Research & Development Center
2019	Kyoto Plant-Kyoto
2021	Kyoto Plant-Kyoto*

\* A monitoring survey was conducted to confirm the preservation effects of the measures.

**Kyoto Plant-Kyoto Cultivating Rare Plants in Cooperation with the Local Community**

Based on an ecosystem survey conducted, we learned that the Kyoto Plant serves as a refuge where certain plants and insects can survive locally, and we found that this area was an important environment in terms of preserving regional diversity. To create a habitat for dragonflies and other insects, we built a biotope in the "Plaza of Relaxation," a green space on the campus, and rare aquatic plants such as water lilies and oval-leafed pondweed are being cultivated in a pond within the plaza. The pond has little or water flow, so requires regular human intervention to maintain water quality. In March 2022, employees participated in a *kai-bori* (pond draining and cleaning) event to protect the pond ecosystem.

During the pond draining and cleaning, we conducted a biological monitoring survey, which identified two new species: the *Cloeon dipterum* (a relative of the mayfly) and the *Anax nigrofasciatus* (a type of dragonfly). We believe these species may have begun to use the ponds as a result of aquatic plantings in the biotope.



Relaxation Plaza



Employees engaged in pond draining and cleaning



*Cloeon dipterum* larva



*Anax nigrofasciatus* larva

The seedlings of the rare aquatic plants were separated out by "Sustainable Kyoto," an environmental education center within the Kyoto City Southern Clean Center. Seeds of oval-leafed pondweed that grew well in the pond were collected, and some of them were returned to "Sustainable Kyoto" in November 2021. "Sustainable Kyoto" will provide these seeds to companies and schools in the city of Kyoto that cooperate in raising and propagating rare aquatic plants.



Oval-leafed pondweed (left) and harvested seeds (right)

**Kyoto Plant-Kyoto-Shiga Preservation of Wetlands Where White Egret Flowers Bloom**

We are working to protect the rare white egret flower by preserving wetlands located within the plant. Employees regularly remove invasive herbaceous plants such as broomsedge bluestem and maintain the wetland environment, which gives the white egret flower room to bloom every summer.



Employees clearing away invasive herbaceous plants



White egret flower blooming

**Overseas Preservation Activities**

Mitsubishi Motors (Thailand) Co., Ltd. (MMTh) and a non-profit organization, the Mitsubishi Motors Thailand Foundation (MMTF), are working with Thailand's Royal Forest Department and the Thailand Greenhouse Gas Management Organization to revitalize an area of forest under the "60 Rai Reforestation" Project to commemorate MMTh's 60th anniversary. In FY2021, we planted 12,000 trees to revitalize an area of forest covering 60 rai (9.6 hectares) in eastern Chonburi and Sa Kaeo provinces. In FY2022, we will plant trees on 40 rai (6.4 hectares) in Nakhon Ratchasima Province. Employees from MMTh and people from the local community will continue working together to cultivate an awareness of regional environmental preservation.



Planting trees in Thailand (Chonburi Province)