

Climate Change Measures

Resource Recycling

**Environmental Risk Prevention Measures** 

**Biodiversity Conservation** 

# **Management Approaches**

## **Basic Approach**

The Isuzu Group considers environmental conservation in all its business areas and works to reduce the environmental impact of its activities through the development and operation of an environmental management structure. We are committed to achieving the Isuzu Environmental Vision 2050 and contributing to the realization of a sustainable society.

#### Vision Framework

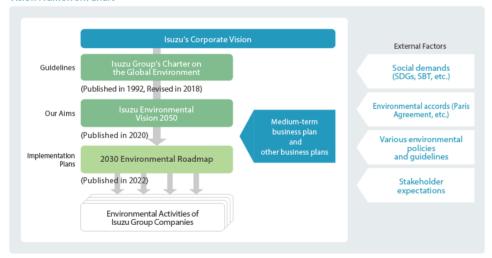
The Isuzu Group regards conserving the global environment and pursuing our business activities in all areas with an environmental awareness as important business challenge. To this end we have established the Isuzu Group's Charter on the Global Environment.

All Isuzu Group members use the Charter as a guideline when engaging in environmental activities. It was first published in 1992, and in line with dramatically changing societal trends and social demands, was revised in 2018.

In addition, in order to realize a sustainable society, and believing it is necessary to clarify the Isuzu Group's environmental aspirations from a longer-term perspective, in March 2020 we published our Isuzu Environmental Vision 2050.

In June 2022, Isuzu issued a new 2030 Environmental Roadmap, which presents the roadmap and challenges Isuzu sees for the year 2030 at this point in time in order to realize its long-term environmental vision. By establishing and operating environmental management based on this philosophy system, the Isuzu Group contributes to reducing environmental burdens and building a sustainable society through the promotion of environmental activities in all of its global business domains.

#### Vision Framework Chart

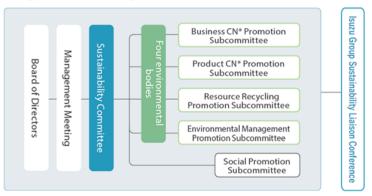


## Management Structure

The Isuzu Group has established four environmental bodies under the Sustainability Committee to facilitate environmental conservation activities in all of its business operations. These four bodies consist of Isuzu Group affiliate companies operating in environmentally relevant fields. They set and pursue their goals to resolve many different problems and improve their environmental activities. The Sustainability Committee, chaired by the Executive Vice President and including executives in charge of each area, meets regularly (at least four times a year) to deliberate and make decisions on a wide variety of matters related to the resolution of Isuzu's key environmental issues and environmental conservation, including climate change measures. Since FY2024, we have reviewed the Isuzu Group's structure for promoting environmental activities and established a Group environmental meeting for all consolidated subsidiaries under the Group sustainability liaison committee. At the Group environmental meeting, we conduct grouping considering regional characteristics and business types, and promote environmental activities throughout the Isuzu Group to achieve the Isuzu Environmental Vision.

### Composition of Sustainability Committee

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\* CN: Carbon neutral

#### Role of Four Environmental Bodies

Business CN Promotion Subcommittee	Focusing mainly on production activities, which are the Group's main source of CO <sub>2</sub> emissions, the subcommittee promotes cross-divisional activities to achieve the 2050 carbon neutral goal, aiming to achieve carbon neutrality in the Isuzu Group's business activities.
Product CN Promotion Subcommittee	The subcommittee promotes various activities that contribute to the carbon neutrality of products, including decarbonization technologies and energy, aiming to achieve well-to-wheel carbon neutrality.
Resource Recycling Promotion Subcommittee	The subcommittee promotes waste controls and recycling activities in all Isuzu's business activities including products and services, toward achieving 100% recycling of resources.
Environmental Management Promotion Subcommittee	The subcommittee promotes environmental activities in coordination with Group companies, centered mainly on environmental management measures such as ISO 14001 certification acquisition, environmental risk management, and biodiversity preservation.

## Isuzu Group's Charter on the Global Environment

All Isuzu Group members use the Charter as a guideline when pursuing environment activities.

### **Basic Policy**

▶ Realization of a prosperous and sustainable society

We the members of the Isuzu Group regard it as an important business challenge to preserve the global environment so that our planet remains prosperous and sustainable and can be passed on to future generations. In this regard, we pursue our business activities in all areas with an awareness of environmental conservation.

▶ Reduced environmental burden for all business operations

The Isuzu Group recognizes our responsibility in supporting transportation, offers enhanced products and services to our global customers through close cooperation with all Group companies, and develops and operates our environmental management system to reduce the environmental burden of all of our business areas.

#### **Action Guidelines**

▶ 1 Create a sustainable society

We coordinate our business operations and environmental initiatives, thereby offering environmentally-aware, high-value-added products and services to society.

2 Comply with environmental laws and minimize the environmental load

In an effort to minimize the impact on the environment from our business operations, we ensure that we comply with environmental laws and engage in key environmental issues in all of our business areas from development to production, distribution, sales and servicing, addressing climate change, resource recycling, prevention of environmental risks from hazardous substances, environmental measures and conservation of biodiversity.

▶ 3 Promote environmental technology

We promote the development of technology to reduce the environmental load applied throughout the product lifecycle.

▶ 4 Maintain proactive social communication

We maintain a positive attitude toward the disclosure of product, service, and business activity information on the environment, promoting good communication with members of society and communities, and work toward realizing a prosperous society.

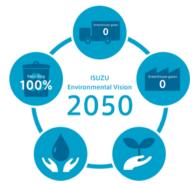
▶ 5 Foster environmental awareness as corporate citizen

We engage in perpetual efforts to foster environmental awareness in each Group member as a corporate citizen operating in a local community, encouraging them to learn about and act toward environmental conservation.

### Isuzu Environmental Vision 2050

### Formulating Our Vision

In order for society to be prosperous and sustainable in 2050, and for Isuzu to continue to support transportation, in March 2020 the Isuzu Group published our Isuzu Environmental Vision 2050. To help ensure a prosperous and sustainable society, each and every member of the Isuzu Group is committed to undergoing the challenge of achieving our Isuzu Environmental Vision 2050 together with our customers and partners.



#### Toward the Realization of the Environmental Vision

We believe that the road to the realization of Isuzu's environmental vision, as explained in the Isuzu Environmental Vision 2050, is a very long and arduous one. Our goal is to enable each and every person in the Isuzu Group to think and act on Isuzu's four environmental priorities. In June 2022, we created the 2030 Environmental Roadmap as a roadmap that clarifies the challenges the Isuzu Group wants to take on and the vision it aims to achieve by 2030, a milestone.

This roadmap is a summary of how Isuzu thinks and wants to achieve its environmental vision as of 2022, based on the thoughts of all concerned. Some of the situations may change drastically in the future due to technological advances and social changes. While flexibly responding to various changes, Isuzu will promote GX (Green Transformation) in all of its business activities to realize the Aspiration shown in the Environmental Vision.

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## Management Approaches

### 2030 Environmental Roadmap

The 2030 Environmental Roadmap presents Isuzu's goals (2030 Challenge) and action plans (Global Action) to achieve a decarbonized and sustainable society by 2030.

Aspirations of Isuzu Environmental	2030 Environmental Roadmap		
Vision 2050	Goals	Global Action	
Zero GHG emissions from operations	<ul> <li>Halve CO<sub>2</sub> emissions* from 2013 levels by 2030</li> <li>* Scope1+Scope2</li> </ul>	Reduce total energy use     Install and expand clean energy use     Leverage innovative technologies	
Zero GHG emissions across product life cycles	Build a carbon-neutral vehicle lineup that meets diverse needs	Identify necessary technologies by 2025     Increase the number of mass-production models by 2030 while promoting practical implementation of carbon-neutral vehicles	
100% recycling of waste and end-of-use vehicles	Advance a circular economy	Thoroughly manage outputs* of all operating sites Increase resource efficiency Transition to circular business model Outputs refers to waste, emissions and wastewater here.	
Safe, reliable operations and products	Strengthen environmental management and supplier engagement	Build Group-wide environmental management system     Build a sustainable supply chain     Identify and promote adaptation to environmental/nature risks in operations	
Conserve native biodiversity in local communities	Promote conservation of native local biodiversity	Partner with local communities to advance conservation     Communicate our conservation efforts actively     Raise awareness and train employees to be environmental stewards	

#### In Pursuit of Our Vision

The Isuzu Environmental Vision 2050 is not easy to achieve.

The Isuzu Group will gather a variety of wisdom and new technologies and cooperate with customers and business partners to pursue, from the perspective of multi-stakeholder partnership, many different efforts to make our society rich and sustainable.

> Isuzu Environmental Vision 2050 □

## Contributions to Sustainable Development Goals (SDGs)

For the Isuzu Group to help realize a prosperous and sustainable society, we believe that activities aimed at achieving the Sustainable Development Goals (SDGs) adopted at the UN summit are important. Isuzu will contribute to the achievement of the SDGs through the promotion of environmental activities and taking on the challenge of reducing environmental impacts.



### Ensure healthy lives and promote well-being for all at all ages

• Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.



## Ensure availability and sustainable management of water and sanitation for all

- Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- Target 6.b: Support and strengthen the participation of local communities in improving water and sanitation



#### Ensure access to affordable, reliable, sustainable and modern energy for all

- Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix.
- Target 7.3: By 2030, double the rate of improvement in global energy efficiency.



#### Ensure sustainable production and consumption patterns

- Target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
- Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and



#### Take urgent action to mitigate climate change and its impacts

- Target 13.2: Integrate climate change measures into national policies, strategies and planning.
- Target 13.3; Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.



#### Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from landbased activities, including marine debris and eutrophication.



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.



#### Strengthen the means of implementation and revitalize the global partnership for sustainable development

- Target 17.16: Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.
- Target 17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

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# **Climate Change Measures**

## **Basic Approach**

#### **Products and Services**



We will aim for zero greenhouse gas (GHG) emissions\* across the entire life-cycle of Isuzu Group products by 2050

\*Zero GHG emissions: Net zero balance of GHG emissions and absorption

#### **Business Activities**



We will aim for zero greenhouse gas (GHG) emissions\* arising directly from Isuzu Group operations by 2050

\*Direct GHG emissions from business activities: Scope1+Scope2

## **Management Structure**

> Management Structure

## **Science-Based Target Setting**

Isuzu aims to minimize the risks and maximize the opportunities associated with climate change. To achieve a reduction in GHG emissions in line with the Isuzu Environmental Vision, Isuzu has developed the 2030 Environmental Roadmap, which considers the various measures appropriate for the Group's current operations. To move toward achieving carbon neutrality for society as a whole, Isuzu supports the Paris Agreement's goal of limiting global temperature rise to within 1.5°C and is progressing with science-based target setting to achieve this objective. As part of this effort, in 2022, Isuzu approved the international Science-Based Targets (SBT) Initiative in which we committed to aligning our business activities with the goals of the Paris Agreement. We will further clarify our climate change strategy in the future and continue working to become a sustainable company that contributes to a decarbonized society.

## Strategy Relating to Climate Change

Many different natural disasters, linked to climate change, are significantly affecting our society and addressing climate change has become a globally recognized urgent and top-critical issue. Based on this awareness, carbon-neutral strategies are rapidly being introduced in Japan and many other countries. The move toward a decarbonized society is gaining momentum worldwide. Isuzu views the response to climate change as an opportunity for growth and has intensified its commitment to the issue. Isuzu performed scenario analysis and specified risks and opportunities on the basis of its long-term environmental scenario up to 2050, based on the IPCC's climate scenario and the social economy scenario created by the IPCC and IEA. As a result, the global climate change also leads to frequent natural disasters that are increasingly severe. This renewed our awareness of the fact that natural disasters may seriously affect Isuzu's business activities and its products.

Countering climate change requires the satisfaction of tighter environmental regulations and the development of new technologies. Meanwhile, the society is increasingly anticipating the creation of an innovation to help achieve a decarbonized society. Addressing the issue properly will lead us to new business opportunities. To this end, the Isuzu Environmental Vision 2050 regards measures against climate change as one of the priority issues. Across all of Isuzu's business activities, with a focus on its production operations, the 2030 Environmental Roadmap establishes the target of a 50% reduction in CO<sub>2</sub> emissions (Scope 1 + Scope 2) by 2030 (as compared with emissions in FY2014). We also have the Carbon Neutrality Plan for establishing, by 2040, a full lineup of products compatible with the transition to carbon neutrality, and for expanding the mass production and sales of electric vehicles over our major models in 2030. We will invest 1 trillion yen by 2030 to achieve the Carbon Neutrality Plan alongside implementing connected strategies and other initiatives.

## **Climate Change Measures**

### Long-term Environmental Scenarios

#### 4°C Scenario

In the 4°C scenario, continued reliance on fossil fuel allows climate change to go unchecked. This entails the aggravation of natural disasters. People and nations scramble for availability of fossil fuel, limited resources. This gives rise to wider gaps and a trend toward anti-globalization, rendering international governance dysfunctional. In the scenario, progression of climate change brings about an undesirable society that is prone to disaster and economically stagnant.

#### 1.5°C Scenario

In the 1.5°C scenario, regulations on GHG emissions are tightened and, because of technological innovation and other factors, the rise in temperature is kept at 1.5°C or smaller. This would make the society carbon-neutral. Tighter regulations and advance of technological innovation would greatly change our social and industrial structure.

Isuzu performed a scenario analysis based on IEA's scenario (e.g.2DS/B2DS/SDS). The 1.5°C scenario would bring significant changes to Isuzu's products depending on their usage, and to our business activities.

#### **Products**

- By type of vehicle
- Forsmall commercial vehicles to support short-distance, small-quantity transportation, EVs and other next-generation, power-train vehicles are increasingly developed and offered
- Electrification and other trends emerged in mid to-to large-sized commercial vehicles.
- Internal-combustion engines will continue to play significant roles in mid- and large-sized commercial vehicles which support long-distance, large-quantity transportation.
- Utilization of sustainable, decarbonized clean energy
- We need to develop and market power trains with much greater fuel efficiency and smaller energy loss than conventional ones and the products equipped with such power trains.

#### Service

- We are currently conducting a demonstration test of automatic driving, platooning and full-trailer trucks, all of which have become popularized.
- More efficient means of transportation become common.

#### **Business Activities**

- · In production and other business activities, we transition to decarbonized clean energy.
- We thoroughly practice minimization of resource input and efficient use of emissions with an aim to achieve carbon neutrality.

### **Risks and Opportunities**

Risks brought by climate change are divided into transition risk and physical risks: the former accompanies a transition to a decarbonized society while the latter takes such forms as the aggravation of natural disaster and may exert physical impacts.

The climate change risks and opportunities anticipated in Isuzu's operations are as follows:

Classification	Risks	Opportunities	Action	Impact on our operations
Transition-related Risks and opportunities associated with transition to a decarbonized society	Decrease in our market share due to delay in reacting to tighter environmental regulations	Increase in demand for zero-emission vehicles	Advance the efforts to establish a full lineup compatible with the transition to carbon neutrality	Large
	Increase in development and production costs for building compatibility with diverse power trains such as those for EVs and FCVs	Expansion of open innovation     Widespread use of reasonably priced clean energy	Utilization of alliance in pursuing efficient, collaborative development     Switching to reasonably priced clean energy to achieve low-carbon operations and reduce costs	Large
	Shrinkage of market of internal combustion vehicles using fossil fuel	-	Using next-generation fuel (carbon-neutral fuel) to utilize existing internal- combustion technologies and infrastructure	Large
	Decline in our brand power due to the incapability to address diverse needs of logistics infrastructure	Increase in needs for automatic driving, platooning and full-trailer trucks	Creation of logistics innovation contributing to carbon neutrality through co-creation with customers	Large
	Increase in energy costs and in reputational risks due to delays in the introduction of GHG reduction measures and renewable energy in our business operations overall	Early introduction of renewable energy to reduce costs and boost our corporate image	Expansion of introduction of renewable energy     Continued encouragement of energy-saving activities to reduce energy costs	Moderate
Physical Risks and opportunities concerning phenomena such as the aggravation of natural disasters and depletion of water resources	Damage to business operations due to the rising occurrences of abnormal weather (e.g. flood, typhoon)	Increase in demand for disaster-proof vehicles     Expansion of needs for infrastructure services resistant to natural disasters	Providing disaster-proof vehicles Repair of flooded vehicles Expansion of BCP to strengthen our corporate culture	Large

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## **Climate Change Measures**

## Information Disclosure Based on the TCFD Recommendations

Isuzu is committed to the disclosure of climate change-related information in line with the framework recommended by the TCFD.

For the specific recommended disclosure items, see the relevant page.

Recommended disclosure item		Page	
Governance	a) Explain the system for the organization's board of directors to supervise efforts to address climate-related risks and opportunities.	> Management Structure	
	b) Explain the roles of management in the evaluation and management of climate-related risks and opportunities.		
Strategy	a) Explain the short-, medium- and long-term climate-related risks and opportunities identified by the organization.	Strategy Relating to     Climate Change      Long-term Environmental     Scenarios      Risks and Opportunities      Products and Services      Business Activities	
	b) Explain the impact of climate-related risks and opportunities on the business, strategic and financial planning of the organization.		
	c) Explain the impact of many different scenarios such as the 2 °C scenario on business, strategic and financial planning.		
Risk Management	a) Explain the process the organization uses to identify and evaluate climate-related risks.	> Management Structure > Long-term Environmental Scenarios	
	b) Explain the process the organization uses to manage climate-related risks.		
	c) Explain how the process the organization uses to identify, evaluate and manage climate-related risks is integrated into the organization's general risk management.		
Indicators and Targets	a) Disclose the indicators used to evaluate climate-related risks and opportunities in line with the organization's strategy and risk management processes.	> ESG Data > Business Activities and Environmental Hazards	
	b) Disclose greenhouse gas (GHG) emissions and related risks in Scope 1, Scope 2 and, if applicable, Scope 3.	> Isuzu Green Procurement Guidelines	
	c) Disclose the goals the organization uses to manage climate-related risks and opportunities and its track record for the achievement of the goals.	Isuzu Environmental Vision 2050     2030 Environmental Roadmap	

#### **Initiatives**

#### **Products and Services**

### Efforts to Achieve Carbon Neutrality

To realize a decarbonized society, the achievement of carbon neutrality is the highest-priority social issue. Isuzu is thus aggressively pursuing carbon neutrality.

The achievement of carbon neutrality by 2050 requires that Isuzu successfully shift to carbon neutrality by shifting from fossil-fuels to carbon-neutral energy sources to power all of its new vehicles that will be available worldwide before that time. For that purpose, Isuzu is strongly pushing forward with its development of electric cars with a view toward mass production. In 2023, we released a mass-produced battery electric vehicle (BEV) as part of our new ELF model series, adding it to our new product lineup. Furthermore, we are conducting experiments on the introduction of FCVs in wider society to identify the technologies. At the same time, we are preparing to introduce some of these products to the market. We are assuming there will be situations where, for commercial vehicles, internal combustion engines will continue to be necessary. So we will continue to develop high-performance internal combustion engines, including hydrogen internal combustion engines, as we prepare for future carbon-neutral fuels such as biofuels and renewable energy-derived synthetic fuels.

#### **EVision**

Isuzu has launched a total solution program called "EVision" to support commercial EV adoption, resolve implementation challenges, quantify the effects of the decarbonization initiatives, and formulate further decarbonization proposals in a plan-do-check-act (PDCA) cycle to achieve carbon neutrality for customers.

Various issues may arise when customers seek to introduce commercial EVs relating to battery charging facilities, electricity prices, and quantifying the benefits of lowering vehicles' environmental burden. Through EVision, Isuzu will address these issues by providing solutions at each phase of EV adoption from the initial review of commercial EV introduction to actual introduction and post-introduction.

> EVision 🔲

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## **Climate Change Measures**

### Development and Diffusion of Next-generations Vehicles

#### Light Electric Truck

In 2019, we started monitoring the use of the light electric truck for home deliveries, deliveries to convenience stores, and waste collection. As we verify the economic rationality and convenience of the truck, a new battery electric vehicle (BEV) was added to the product lineup in March 2023 with the release of the new ELF model.

The new ELF's BEV can flexibly adapt to users' needs by aligning its functionality with that of diesel vehicles.



### > Light Electric Truck 🔲

#### Heavy-duty Fuel Cell Truck

The collaborative development with Honda R&D Co., Ltd. began in 2020. A heavy-duty fuel cell truck is being developed and a monitoring program for the truck will begin in FY2024. Additionally, in May 2023, we signed a new contract to act as a development and supply partner for the fuel cell system scheduled for introduction in 2027. These efforts will contribute to the goal set by the Japanese government of introducing 5,000 electric heavy-duty commercial vehicles by 2030.



In 2021, we launched a joint project called Commercial Japan Partnership Technologies (CJPT). Through this project, we will cooperate in efforts for the social implementation of hydrogen technology in Fukushima Prefecture. In 2023, we also participated in projects in Tokyo Metropolis.



#### BEV Full-flat Route Bus

To meet the need for zero-emission public buses, we are developing BEV full-flat Route buses with the aim of starting production in FY2025.

North American Medium-duty Electric Trucks As part of the Isuzu Cummins Powertrain Partnership Agreement, a prototype vehicle equipped with a Cummins electric system was built and monitoring is being conducted. We will proceed with the verification of convenience and performance for future product development.







## Working toward Next-generation Fuels

Isuzu recognizes that the use of next-generation fuels such as carbon-neutral synthetic fuels and biofuels (CN fuels) in vehicles is a technical issue that should be addressed at the same level as electrification to realize a carbon-neutral society. Carbon-neutral synthetic fuels are CN fuels refined from hydrogen that is, in turn, refined from renewable energy sources and carbon dioxide from the atmosphere or emitted by factories using a synthetic process powered by renewable energy. Biofuels are made from biomass that absorbs CO<sub>2</sub> from the atmosphere. They can also be CN fuels when renewable energy is used in the refining process. Japanese government subsidies have been made available for carbon-neutral synthetic fuels, including for the development of refining technology for social implementation. Society can expect the following benefits from the successful introduction of CN fuels.

- Utilization of existing internal-combustion engine technologies
- Immediate contribution to the achievement of carbon neutrality as soon as supply begins (utilization in already available vehicles)
- Utilization of existing fuel supply infrastructure such as existing fuel stations

In preparation for the social implementation of CN fuels and to accelerate its adoption, we are engaging in activities such as assessing and improving the conformity of vehicles and conducting demonstration tests to evaluate performance, durability, reliability, and other properties. Additionally, we are identifying issues and proposing improvements regarding fuel quality and other related matters. Moreover, we will actively participate in and vigorously advance efforts to promote CN fuels alongside our initiatives to engage with CN fuel manufacturers. We will also be actively involved in the establishment of systems that do not require additional investments in the distribution process, such as supply and sales, which the Japanese government and other entities are working on. Commercial vehicles serving people and their logistics needs, the products that Isuzu manufactures, are available in many different types and are used in many different situations and environments. Some of these vehicles may be hard to electrify. The utilization of CN fuel in these vehicles can accelerate the shift to carbon neutrality. Commercial vehicles are global products that are sold worldwide. Depending on national or regional situations, however, it may be difficult to switch to electric vehicles. In these situations, the use of already available vehicles will continue. In these countries and regions, the availability of CN fuels with the potential to leverage the existing fuel-supply infrastructure would effectively facilitate carbon neutrality.

In April 2021, Isuzu set up a department to advance and accelerate the utilization of CN fuels and has been promoting their aforementioned broad range of applications. In April 2023, we established a department to oversee and promote the CN strategy, further strengthening our efforts and expanding our promotion activities. In pursuit of a globally carbon-neutral society, Isuzu will continue to encourage the use of CN fuels. At the same time, it will accelerate the future of *transport*.

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## **Climate Change Measures**

#### **Business Activities**

### Use Less Energy

We will continue to implement energy conservation initiatives throughout our business activities and our activities to reduce energy consumption by streamlining processes, reviewing and optimizing the operations of facilities, etc., and visualizing energy consumption at all Group companies.

We are producing substantial results throughout the Isuzu Group through our review of our conventional ways of using energy to identify more opportunities to conserve energy and deploying these solutions across our companies.

Furthermore, the Isuzu Group supports climate-related regulations such as the "Basic Policy on the Rationalizing Use of Energy and Shifting to Non-fossil Energy (Energy Conservation Law)" and the "Act on Promotion of Global Warming Countermeasures (Global Warming Prevention Law)" in the case of domestic regulations and responds appropriately through various reports to government agencies based on laws and policies.

#### Efforts to Increase the Environmental Friendliness of Our Dealers' Sites

Isuzu is trying to increase the environmental friendliness of its sites through proactive efforts such as the installation of LED lighting and skylights and the introduction of reusable energy systems when renovating or building new sales bases. Our newly built sites employ an effluent treatment system using microorganisms to prevent environmental pollution which may result from the wastewater generated during vehicle maintenance or washing. In such a way, we are promoting the transition to water treatment facilities that are more environmentally conscious than the existing ones.



SHIMANE-NISHI ISUZU MOTORS CO,LTD

### **Creating Clean Energy**

To actively generate clean energy through the proactive introduction of renewable energy, a new 1,156 kW solar power generation facility was installed at the Tochigi Plant in FY2023. Additionally, Isuzu Group companies in Thailand are currently installing large photovoltaic power generation systems. In and after FY2019, Isuzu Motors Co., (Thailand) Ltd., Isuzu Engine Manufacturing Co., (Thailand) Ltd., and Isuzu Logistics (Thailand) Co., Ltd. installed solar panel systems capable of a total output of 3,460 kW. Other Group companies in Thailand are similarly planning to introduce energy-saving equipment and photovoltaic power generation systems.



Tochigi Plant

### Switching to Clean Energy

For energies used at business sites, we will sequentially switch to clean energy derived from renewable sources.

Since FY2020, Isuzu has utilized the Aqua Premium rate plan, which applies 100% hydroelectric power to a portion of the electricity purchased from TEPCO Energy Partner, Inc.

Through this plan TEPCO Energy Partner, Inc. sells the CO2-emission-free electricity that it generates hydroelectrically, offering an option for customers who want a portion of the electricity they purchase to be carbon-free.

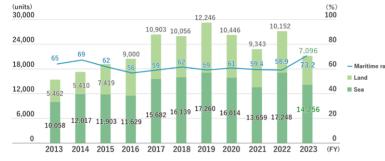
Additionally, in FY2023, Isuzu started purchasing electricity with non-fossil certificates and expanding the purchase of electricity derived from renewable energy sources. Isuzu will continue to utilize various mechanisms to further expand its use of clean energy. In FY2023, approximately 12% of Isuzu's electricity consumption was decarbonized. As for fuels, clean energy technologies such as electricity have not been established yet. Given the above, Isuzu began using carbon-neutral LNG as part of the fuel used at its factories in FY2022. Carbon-neutral LNG is liquefied natural gas that offsets the GHG emissions generated during the entire process from natural gas extraction to combustion using CO<sub>2</sub> credits (carbon offset), resulting in no net CO<sub>2</sub> emissions on a global scale even when the gas is burned. The CO<sub>2</sub> credits are voluntary credits issued by internationally reputable organizations, and are the result of projects that meet the procurement requirements, quality standards, and other criteria of the adoption destination, ensuring that they have no significant adverse effects on the region or ecosystems. Isuzu will continue to utilize various clean energy mechanisms and expand the introduction of clean energy in the future.

## **Climate Change Measures**

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

Isuzu is reducing the CO<sub>2</sub> emissions in its logistics processes at the target rate of 1% per year by reviewing the routes it uses to transport parts, promoting fuel-efficient driving during transportation, and adding more shipping routes to increase marine transportation (modal shift).





#### Main Initiatives for the Reduction of CO<sub>2</sub> Emissions

- · Improved transportation efficiency as a consequence of efforts such as the thorough implementation of load-based truck transport management
- Increased use of returnable racks that can be folded during return
- Increased trailer transportation and increased container fill rates

In 2020, a new parts center was added next to the Tochigi Plant, centralizing all of the warehouses that had been scattered around the surrounding area. This centralized transportation between warehouses and improved logistics efficiency. Further, an elevated bridge was installed between two existing parts center warehouses enabling truck transportation to be replaced by automated tractors, which further reduced CO<sub>2</sub> emissions.

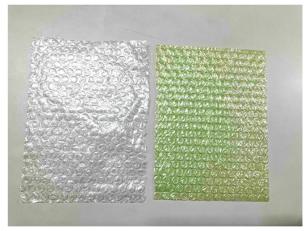
#### **Increasing Container Round Use**

Isuzu works on the Container Round Use (CRU) system which diverts empty import containers to be used as export containers. The increase of CRU eliminates the need to transport empty containers, which reduces the CO2 emissions from transportation and can also ensure the availability of containers. This helps to stabilize logistics.

#### Introduction of Biomass Materials

The Isuzu Group has introduced biomass materials containing sugarcane-derived bio-based "Green Polyethylene (Braskem)" to the packaging materials for KD shipments to overseas assembly plants. The main raw material of Biomass materials, sugarcane, absorbs CO2 through photosynthesis during its growth process, offsetting the CO<sub>2</sub> emissions generated by its disposal and incineration.

Since FY2018, we have switched the production of approximately 9 million A4-size polyethylene bags, which are the most commonly used bag type, from petroleum-based to plant-based sources, resulting in a reduction of approximately 7% in the CO<sub>2</sub> emissions generated by their manufacture. We subsequently expanded the use of plant-based materials to other sizes of polyethylene bags, and as of FY2024, all 10 sizes of polyethylene bag are now made of biomass materials. Additionally, starting from FY2023, all 16 sizes of bubble wrap cushioning materials are now fabricated in biomass materials containing approximately 15% biobased content, resulting in a reduction of approximately 5% in CO<sub>2</sub> emissions. As of FY2024, we have reduced our overall biomass material emissions by approximately 120 tons of CO2 per year. Moving forward, we will continue to promote the transition from petroleum-based packaging materials to plant-based packaging materials and aim for a GHG emission-free lifecycle for packaging materials.



Bio bubble wrap cushioning materials

(On the right is the bio-based bubble cushioning wrap material, and on the left is the conventional bubble cushioning wrap material made from petroleum-derived plastic.)

#### Organizing of Green Sales Activities

Isuzu dealerships are doing all they can for the environment in every aspect of their business activities. They are continuously working to implement all possible environmental activities, including the selection of hybrid vehicles and other environmentally friendly vehicles for use as company cars, implementing Cool Biz and Warm Biz campaigns, and taking part in local cleanup activities.

Dealerships are also promoting efforts to reduce carbon dioxide emissions at sales offices and service centers, further promote the use of recycled automobile parts, etc., and promote proper waste management. To this end, we are working toward acquiring certification as an environmentally friendly auto body shop, which is awarded to business sites that are actively engaged in environmental measures and comply with related laws and regulations. In FY2023, two sites received the Branches Director's Award.

Climate Change Measures

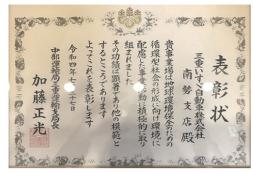
Resource Recycling

**Environmental Risk Prevention Measures** 

Biodiversity Conservation

## **Climate Change Measures**





Mie Isuzu Motor Co Ltd. Ueno Sales Office

Mie Isuzu Motor Co Ltd. Nansei Branch

### Holding Fuel Efficient and Safe Driving Seminars

Considering the life cycle of Isuzu products, the majority of  $CO_2$  emissions comes from product (vehicle) use. The Isuzu has been holding seminars on fuel-efficient and safe driving in Japan and overseas since 1995, to provide Isuzu vehicles' buyers with tips on fuel-efficient driving in accordance with the performance of their vehicles.

#### Seminar Participation over the Past 3 Years

	Courses	Number of participants
FY2023	65	885
FY2022	60	1,128
FY2021	54	884



Fuel-efficient and safe driving seminar

#### **Efforts with Our Business Partners**

Up to the present, Isuzu has been collaborating with business partners on carbon reduction activities by following the "Isuzu Green Procurement Guideline" as the foundation for initiatives such as "Environment Activity Seminars." In December 2022, Isuzu revised the "Isuzu Supplier Sustainability Guidelines" and added requests for compliance with environmental regulations and efforts to reduce greenhouse gas (GHG) emissions. We kindly ask our business partners to sign an agreement as confirmation of compliance with the Guidelines' requirements. In FY2023, we joined the CDP Supply Chain Program and have been strengthening our collaboration with our business partners by advancing efforts related to climate change and GHG emissions tracking. We will continue to advance efforts to achieve decarbonization throughout the entire supply chain.

### Efforts Toward Achieving Carbon Neutrality in Thailand

There are various approaches to achieving carbon neutrality depending on the conditions and characteristics of a country or region. In April 2023, Isuzu Motors, together with Commercial Japan Partnership Technologies Corporation (CJPT), is collaborating with the Charoen Pokphand Group and the Siam Cement Group to advance collaboration toward achieving carbon neutrality in Thailand by promoting unique carbon-neutral initiatives tailored to the country. To initiate these efforts, we have organized carbon-neutral mobility test drives. We will now expand the scope of the collaboration and continue to work on Thailand's unique carbon-neutral initiatives, leveraging resources in the energy, data, and mobility sectors. Furthermore, to further accelerate CJPT's efforts toward carbon neutrality in Asia, we will establish a new subsidiary called "CJPT-Asia" (tentative name) in Thailand as soon as the necessary procedures and preparations are in place. Through this subsidiary, we aim to share our commitment with like-minded partners and cooperate extensively to achieve carbon neutrality.



Experience of test-driving at the carbon-neutral mobility event.

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## **Climate Change Measures**

#### Reforestation Activities in Thailand

The reforestation project launched in Thailand as the "Happiness Green Earth Project" reached its 10th year in 2022. On this occasion, 372 members of various Isuzu Group companies planted approximately 2,000 trees. Additionally, in 2022, we registered with the greenhouse gas emission reduction program set by the Thai government and have since obtained certification for carbon credits. This project contributes to achieving carbon neutrality through ESG-focused management and has led to increased environmental conservation awareness among our employees, including greater respect for biodiversity. Even through small steps, we will contribute to building a sustainable society.







Happiness Green Earth Project

Climate Change Measures

Resource Recycling

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# **Resource Recycling**

## **Basic Approach**



We will achieve 100% recycling of waste and end-of-use vehicles generated by Isuzu Group operations by 2050

## **Management Structure**

> Management Structure

Initiatives

#### Promote Effective Resource Use

#### **Reduced Packaging Materials**

To reduce environmental impact across the entire Isuzu Group, we are optimizing logistics throughout the supply chain from packaging and shipping KD parts\* to overseas factories. In FY2018, in the ASEAN region, we launched, expanded, and promoted the switch from disposable packaging racks, which were treated as waste at overseas assembly plants, to reusable returnable racks. Furthermore, in FY2020, we developed lightweight returnable racks, achieving a 33% reduction in individual rack weight. Additionally, to increase container fill rates, we also introduced two types of racks of different heights. As of FY2024, the deployment of these racks to major destination countries has been completed.

\* Knockdown (KD) Production Parts.



New Type of Returnable Rack

We are also expanding the use of returnable racks for cabs to achieve resource circulation. Previously, for cabs, we used wooden one-way racks, but starting in October 2021, we switched to iron-made returnable racks. With the adoption of iron-made returnable racks, there is no longer a need for wood disassembly tasks at overseas factories such as removing nails, leading to improved safety.

Furthermore, to exploit the upper space generated when loading completed cabs into containers, we developed returnable racks for parts that fit under the cab racks to improve container fill rates through stacking. By loading large parts, such as axles and other parts that were previously shipped using other containers, onto the returnable parts rack, we have reduced the need for approximately 300 40ft-container units per year, contributing to a reduction in greenhouse gas (GHG) emissions during transportation. Moving forward, we will continue to work toward realizing a sustainable society by promoting returnable solutions, reducing materials and containers, and advancing resource circulation to reduce GHG emissions.



Cab Returnable Rack (orange) + Parts Returnable Rack (grey)

### **Effective Utilization of Water Resources**

Isuzu's business activities entail the consumption of a large quantity of water in vehicle manufacturing, plant maintenance, effluent treatment and many other situations.

Isuzu endeavors to conserve these finite water resources by, for example, encouraging the reuse of treated wastewater and the water used in processes and efforts to consume less water on a Group-wide basis.

Climate Change Measures

Resource Recycling

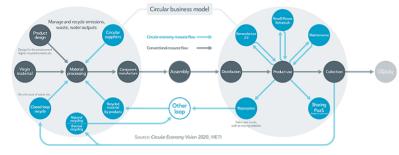
**Environmental Risk Prevention Measures** 

Biodiversity Conservation

## Resource Recycling

### Strengthening Initiatives Towards a Circular Economy

The transition to a sustainable society requires a shift from the linear economic system that emerged from the mass production and mass consumption model to a circular economic system. Isuzu will promote the transition to a circular economic system, which focuses on the efficient and cyclical use of resources at every stage of its business, to maximize added value more than ever before.



### Initiatives for Maintenance Leases Utilizing Remanufactured Units

We have begun offering maintenance lease services for the large truck "GIGA type-Re" utilizing the Remanufactured 1 Unit.

This initiative involves reoffering maintenance lease services for reconditioned vehicles (hereafter "remanufactured unit vehicles") that have been subject to Isuzu's remanufactured technology to restore reusable engines, transmissions, and other components to new-like functionality after short-term, high-performance leasing. To restore functionality, we utilize the advanced genuine maintenance tool "PREISM" to assess the vehicle's condition and detect data on parts that require replacement.

Isuzu is striving for zero GHG emissions across the entire product lifecycle by 2050. Additionally, the Company is promoting activities toward achieving a "circular economy," aiming for 100% recycling of waste and end-of-life vehicles.

Due to their higher number of reusable parts compared with new vehicles, remanufactured unit vehicles enable the effective recycling of resources, reduce CO<sub>2</sub> emissions, and contribute to the realization of a carbon-neutral society. When comparing the CO<sub>2</sub> emissions generated by the manufacture of one unit of "GIGA type-Re" to the manufacture of a new vehicle, there is an approximate reduction effect of about 76 tons<sup>2</sup>.

Furthermore, we ensure the same durability and reliability in our remanufactured unit vehicles as in our new vehicles, providing equivalent value and supporting safe vehicle operations for our customers. Isuzu will continue its efforts to support "transportation" through the provision of environmentally friendly vehicles and to minimize the impact of transportation on the global environment.

- \*1 The term "remanufacture" refers to products that are like-new having been analyzed and had parts replaced etc. following the collection of used products.
- \*2 Calculated based on a heavy-duty "GIGA" truck that has traveled 1 million kilometers over five years.

### **Promoting Rebuilding**

The Isuzu Group promotes the rebuilding of used engines and parts to more effectively use the limited resources that we have. In the rebuilding of engines, used engines are disassembled, the parts are cleaned and inspected and worn parts are replaced with new ones before reassembly. The Isuzu Group provides customers with genuine Isuzu E-PARTS that have been refurbished to meet the same inspection criteria that new parts straight off the production line must meet. This enables our customers to use products that are more eco-friendly but are of the same high quality as new products. Isuzu Engine Manufacturing Hokkaido Co., Ltd. rebuilds engines and parts to reduce resource input and manufacturing energy. We will further reduce resource and energy input by establishing evaluation standards for parts recycling technologies and recycled parts, improving the parts recycling rate, and promoting and expanding rebuilding.





Rebuilt Engine Reassembly

## **Promoting Recycling**

The Isuzu Group promotes the recycling of the waste generated by its business operations through meticulous sorting on a daily basis and pursues activities to reduce and mitigate the generation of discharge, including by sorting out valuables from the discharge.

Domestically, we also recycle used-cars pursuant to Japan's Act on Recycling, etc. of End-of-Life Vehicles, as well as three designated items (ASR\*, air bags, and chlorofluorocarbon).

Additionally, to recycle and properly dispose of ASR, we have created the Automobile Shredder Residue Recycling Promotion Team (ART), which works in cooperation with 12 other automobile manufacturers.

- \* Automobile Shredder Residue
- > Initiatives Concerning the Act on Recycling, etc. of End-of-Life Automobiles (Japanese Only)

Climate Change Measures Resource Recycling

**Environmental Risk Prevention Measures** 

**Biodiversity Conservation** 

## **Environmental Risk Prevention Measures**

## Basic Approach



We will pursue safe, reliable operations and products across the entire Isuzu Group value chain

## **Management Structure**

> Management Structure

Initiatives

#### **Promoting Water Resource Conservation**

Understanding and Responding to Water Related Risks

In recent years, climate change is increasing concern about the ability to secure water resources and about water-related risks such as flooding. In light of this, Isuzu began surveying water-related risks in FY2016 using Aqueduct, a global water risk evaluation tool.

The survey showed that Isuzu faced no problems requiring urgent action in its use of groundwater or clean tap water. However, we also identified risks dependent on geographic and other conditions that could affect plant operations and supply chains in the event of torrential rains or extreme weather. In response to these findings, we are pushing forward with activities to reduce water resource consumption and to mitigate waterrelated risks in view of the risks faced in plant and business operations.

## **Building a Society Free of Water Stress**

The Isuzu Group contributes to building a society free of water stress, where all people can have access to safe water without concern.

### Isuzu Gives Water...for Life

Since 2013, 21 Isuzu Group companies in Thailand have participated in the Isuzu Gives Water...for Life project. As of March 2023, the project has held 42 events. The goals of the project are to install water treatment systems and provide access to drinkable water at schools in outlying areas of Thailand struggling with polluted water. Through the project, teachers and students learn how to manage and maintain the system so they are able to sustainably secure access to drinking water. This program is a collaboration with Thailand's Department of Groundwater Resources and regional authorities.

In FY2023, despite continuing restrictions due to the COVID-19 pandemic, we conducted activities in response to numerous requests from several schools. At the same time, we received cooperation from related ministries and agencies in Thailand and implemented adequate infection control measures. We will continue to actively contribute to Thai society as a member of the Isuzu Group.







Isuzu Gives Water...for Life Project

Climate Change Measures Resource Recycling

**Environmental Risk Prevention Measures** 

**Biodiversity Conservation** 

### **Environmental Risk Prevention Measures**

## **Thorough Chemical Substance Management**

We take thorough measures to minimize the environmental risks associated with chemical substances used in our business activities and products.

## Managing Chemical Substances and Promoting Alternatives

Management of chemicals (such as paints and oils) used in our business activities.

To reduce their environmental risk and ensure employee safety, we have established internal regulations that require advance applications for the use of new chemicals. These applications are reviewed subject to relevant laws such as the Chemical Substances Control Law11, the Industrial Safety and Health Act, and the Poisonous and Deleterious Substances Control Act to determine the appropriateness of the chemicals' use. In FY2023, we conducted pre-screening for 208 chemicals. In those departments that will use these chemicals, we have implemented necessary measures based on the pre-screening results to ensure their safe use. Furthermore. we have digitized information on the chemicals used in the workplace, including the composition of the chemicals and their usage amounts. We regularly update this database, including adding information from advance applications. Based on this information, we are establishing Pollutant Release and Transfer Register (PRTR)<sup>\*2</sup> notifications and actively undertaking activities to reduce the use of harmful chemicals by shifting to environmentally friendly chemicals and processes.

- \*1 Chemical Substances Control Law: A law concerning the examination and regulation of chemical substances and their manufacture
- \*2 PRTR Law: A law concerning the Promotion of the Management of Chemical Substances.

#### Management of chemicals contained in products

We take into consideration the chemicals contained in raw materials and components in the design and development stages and comply with the chemical regulations of various countries, including Japan's domestic laws, as well as the European REACH regulations, ELV directive, and the United States' TSCA. Isuzu has specified the chemicals that are prohibited or managed by Isuzu as part of the Isuzu Technical Standards considering national regulatory trends. These standards are applied to the raw materials and components used in our products.

We source information about the chemicals contained in parts from the International Material Data System (IMDS), which is a global product substance information communication system for the automotive industry. We receive information from our business partners through IMDS and download and manage it in our internal system. We aggregate the data as needed, conduct checks for regulatory compliance, and make the necessary notifications and reports. Additionally, we utilize the data to reduce the use of chemicals that become subject to new regulations.

There were no chemical-related incidents in FY2023.

### Activities to Control Emission of Ozone Depleting Substances

Isuzu promotes activities aimed at controlling the emission of ozone depleting substances by reinforcing the inspection of facilities using CFCs and installing non-CFC equipment during facility upgrades.

## Together with Our Stakeholders

We request that our business partners submit Environmental Management Self-Evaluation Reports which also include chemicals management data. We talk with our business partners to confirm the status of their chemicals management structures and exchange related information. In this way, we strive to improve chemicals management throughout our supply chain.

# **Biodiversity Conservation**

## **Basic Approach**



We will conserve native biodiversity in the areas surrounding Isuzu Group operations in partnership with NGOs and other stakeholders

### Isuzu Group Policy on Biodiversity

In FY2019, Isuzu formulated an Isuzu Group Policy on Biodiversity while referring to materials such as the Ministry of the Environment's Guidelines for Private Sector Engagement in Biodiversity and the Keidanren Declaration of Biodiversity.

Based on this policy, the offices of each company within the Group conducts activities to help protect their unique regional natural environments and promote the conservation of biodiversity.

Since January 2020, we have endorsed the Keidanren Declaration of Biodiversity and have renewed our determination to work to conserve biodiversity through our business activities.

#### **Basic Vision**

We, the Isuzu Group,understand the relationship all of our business activities have with the ecosystem. We support action that helps achieve a sustainable society through a harmony of business activities and biodiversity.

#### **Action Guidelines**

- · Each employee learns and has an understanding that our business activities are enabled by biodiversity and at the same time, are affecting it.
- · We engage in activities that reduce our impact on biodiversity and protect it in all of our business
- · We protect biodiversity from a global perspective, taking into account the diversity of local
- · We promote cooperation and collaboration with our stakeholders in order to improve our conservation
- · We contribute to local communities, placing valuing on communication and cooperation with stakeholders through disclosing information on activities and other initiatives.

## **Management Structure**

Management Structure

### Initiatives

### **Promoting Biodiversity Conservation Efforts**

Isuzu conducted expert-led biodiversity surveys on the sites of its Fujisawa and Tochigi Plants. The results revealed that the forests were poorly cared for at both sites, which negatively impacted their function as habitats for local species. Consequently, the ecosystem was losing its equilibrium while invasive species were thriving. In response to these results, volunteer employees began working on site maintenance in FY2017. Since then, efforts have continued to develop the areas for native species to thrive, and to restore the healthy

A recent investigation has found that these efforts have helped to reduce invasive species at the sites and that the ecosystem is gradually regaining its equilibrium. We will continue these initiatives in the future, leveraging expert opinions to restore the ecosystem to its natural state and even enrich it. In this way we will maintain an environment for Isuzu to continue its operations as it has always been.









Fujisawa Plant: Preserving the area where Japanese ivv flourishes (Left: Before, Right: After)

Tochigi Plant: Maintaining the site's greenery area (Left: Before, Right: After)

Climate Change Measures Resource Recycling

**Environmental Risk Prevention Measures** 

**Biodiversity Conservation** 

## **Biodiversity Conservation**

### Promoting Efforts to Protect Local Ecosystems

We promote efforts to protect regional ecosystems in local communities where we conduct business, working to conserve them along with their biodiversity. In addition, by encouraging these activities across the entire Isuzu Group, we will remain committed to protecting global biodiversity.

#### Watarase Reservoir Conservation Activities

Since 2016, Isuzu has been involved in conservation activities at the Watarase Reservoir near its Tochiqi Plant. The Watarase Reservoir is the largest reservoir area in Japan and is a Ramsar-registered wetland that serves an important flood control function to prevent flood damage in the region. It is also home to numerous plant and animal species, including endangered species, Isuzu has learned that proper management involving human intervention is necessary to maintain this rich biodiversity for the future and Isuzu continues to participate in activities such as reed cutting, removal of invasive alien species, and trash pickup organized by local governments and NPOs and led by volunteers from the Tochigi Plant. The ongoing conservation activities conducted with local residents have borne fruit and storks have been seen flying and nesting in the Watarase Yusui area.

In FY2022, we received letters of appreciation from Tochigi City for being recognized as an Environmental Conservation Organization, and from the city of Oyama for two consecutive years, in FY2022 and FY2023, as an Oyama City Watarase Yusui Wetland Conservation Support Organization, respectively.

9 staff members from two companies participated in the Watarase Reservoir Invasive Plant Removal Activity. sponsored by Tochigi City in May 2022, to help eliminate non-native species from the expansive reservoir



Participants in the Invasive Plant Removal Activity

### Participating in Activities to Develop Forests That Supply Water in Kanagawa Prefecture

Since FY2019, the Isuzu Fujisawa Plant has been participating in Kanagawa Prefecture's Forest Restoration Partner project. To protect the woodlands that are the source of the groundwater used by the plant, we continue with the work of preserving the Yadoriki Water Source Forest in Ashigarakami District. Group companies at the Fujisawa Plant have also taken part in the effort starting in FY2020, with 64 employees and their families representing four companies participating in the conservation activities held in June and September 2019. While being reminded of the importance of biodiversity and preserving the forests that act as water sources, participants observed nature and helped thin neglected forest, helping return it to its natural state.

\* In FY2021 and FY2022, activities were suspended due to the prevention of the spread of COVID-19. However, activities resumed in FY2023.







Creating chairs using thinned wood

### Isuzu Plaza's Biotope

At Isuzu Plaza, a biotope has been established to replicate the unique ecosystem of the Fujisawa region, where the plaza is located. Since FY2020, we have been collaborating with local university research labs. Our efforts include improvements like revising tree signage content to create a biotope that serves as a place of relaxation for the community, allowing everyone to feel closer to nature. We are actively seeking various pieces of advice to achieve this goal. Students are encouraged to utilize this space for fieldwork and as a practical platform for considering community coexistence. We have provided a venue for presenting research outcomes to Isuzu. Additionally, employees are discovering the significance of ecosystem conservation afresh, while drawing inspiration from the innovative ideas of the students.

Climate Change Measures Resource Recycling

**Environmental Risk Prevention Measures** 

**Biodiversity Conservation** 

## **Biodiversity Conservation**

### **Promoting Sustainable Procurement**

In sourcing raw materials, we take into account sustainability and the conservation of biodiversity. Isuzu has established the Isuzu Green Procurement Guideline to promote environmental conservation activities in collaboration with our business partners. We ask them to engage in environmental conservation activities through annual production briefings and individual briefings.

Furthermore, in December 2022, we revised the Isuzu Supplier CSR Guidelines to include a request for initiatives in biodiversity conservation. We are also requesting appropriate management of water resources and chemicals, along with the efficient and circular utilization of resources. In FY2023, we conducted handouts distribution in June and an online briefing session in February, taking measures to prevent the spread of COVID-19. During the briefing session, we provided information about Isuzu's activity plan for FY2023, along with details regarding the Environmental Management Self-Evaluation Report, which we request business partners to submit. We shared the evaluation results from FY2022 and communicated their requirements for FY2023 concerning this report.

We provided our business partners, who are members of the Isuzu Kyowa-kai\*, with detailed explanations to enhance their understanding of our future initiatives.

\* Isuzu Kyowakai: A cooperative association comprising Isuzu's business partners

#### Adoption of Environmentally Friendly Materials

Wood has been used for the flooring of truck beds for many years, but it takes a long time for trees to reach maturity and be utilized as materials.

Isuzu has begun adopting bamboo, a member of the grass family, as an alternative flooring material to wood, in consideration of forest conservation.

Bamboo, with its fast growth rate that enables it to be utilized as a material in about five years, along with its excellent durability, can be considered a suitable material for truck beds.

Bamboo flooring material is being used in many vehicle models, including the new ELF released in March 2023.



A vehicle utilizing bamboo flooring material

### Developing Human Resources to Build a Society in Harmony with Nature

The Isuzu Group pursues good environment-related communication with its various stakeholders, including its customers, business partners, the surrounding community, shareholders, investors and employees. To this end, we participate in environmental activities in the local communities around where we operate and release many environmental data.

Enhancing its environment-related communication, the Isuzu Group endeavors to obtain more understanding about its environmental activities in pursuit of continued improvements. By proactively sharing information within the Group, we develop human resources that will help build a society in harmony with nature.

#### Training Employees

Isuzu has been providing all employees with common educational programs on the environment since FY2017. This environmental education initiative, covering all Isuzu employees, is held periodically. It raises awareness of environmental issues among employees and promotes a better understanding of the Company's environmental activities. The program combines e-learning and group training, reducing the CO₂ emissions generated by the transportation needs of participating employees. Similarly, the introductory training programs for new and mid-career recruits includes this environmental education, where they learn the reasons behind Isuzu's environmental initiatives and consider what they should do as Isuzu employees. We also provide training regarding environmental laws and regulations as well as internal environmental auditor training every year to deepen employees' understanding and make them more competent.

### Presenting Our Environmental Initiatives to Members of the Local Community

Every year, the Isuzu Fujisawa Plant invites key members of local residents' associations from six neighboring areas. The visitors receive an explanation about the environmental initiatives of Isuzu and the Fujisawa Plant and take part in a tour of the assembly lines. This annual event is a valuable opportunity to promote a better understanding of Isuzu's environmental initiatives and what we actually do for the cause, among people in the local community to whom we usually owe so much.

These activities provide a valuable opportunity for Isuzu's neighborhood residents, to whom we are always grateful, to learn about Isuzu's environmental activities and actual initiatives.

When the event was held in October 2019, 46 people attended, and everyone commented that they understood Isuzu's initiatives well, making it a valuable opportunity for better communication with neighborhood residents.

\* Activities for FY2023 were voluntarily suspended to prevent the spread of COVID-19.



A presentation on our environmental conservation activities