

### **ESG Initiatives**

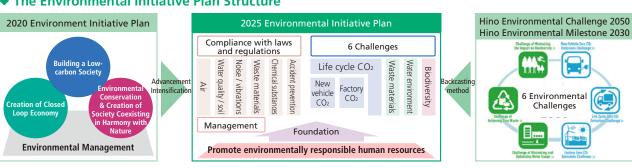
# **Environment**

## **Environmental Initiative Plan (5-year action plan)**

Hino Motors drew up the Environment Initiative Plan, an initiative for realizing its long-term vision based on the Company's "Hino Credo," top policies such as the Hino Global Environment Charter and societal trends. The Company is endeavoring to carry out activities that reduce its environmental footprint. Since the first Environment Initiative Plan was formulated in 1993, its targets have been implemented and reassessed every five years.

This year Hino Motors drew up a new 5-year action plan, the 2025 Environmental Initiative Plan. Based on the backcasting of Hino Environmental Challenge 2050 and Hino Environmental Milestone 2030, and the PDCA cycle of the 2020 Environmental Initiative Plan, this plan has three pillars: "Six Environmental Challenges", "Compliance with laws and regulations" and "Management". Team HINO is united in tackling global issues such as carbon neutrality to contribute to the realization of a sustainable society.

#### **♦** The Environmental Initiative Plan Structure



	2020 Enviro	nment Initiative Plan		202	5 Environmental Initiative Plan			
	Product development	Improve CO <sub>2</sub> emissions and fuel consumption performance of vehicles     Promote the development of vehicles		Life Cycle Zero CO <sub>2</sub> Emissions Challenge	Target: Reduce 12% (per unit transportation volume) compared to FY2013			
		that run on clean energy		Challerige	<ul> <li>Reduce CO<sub>2</sub> emissions in all processes: manufacturing, transport, use, disposal (collaborate with each country and industry)</li> </ul>			
Building Low-carbon Society	Production and logistics	<ul> <li>Initiatives for reducing CO<sub>2</sub> emissions in production activities</li> <li>Make transportation more efficient</li> </ul>		New Vehicle Zero CO <sub>2</sub> Emissions	Target: Reduce 15% (per unit transportation volume) compared to FY2013			
	Sales and	and reduce CO <sub>2</sub> emissions in logistics  • Initiatives for reducing CO <sub>2</sub> emissions		Challenge	Develop and bring electric vehicles to market     Improve diesel consumption			
	after-sales service	in sales activities		Factory Zero	Improve transportation efficiency  Target: Reduce 30% (total global emissions) compared to FY2013			
	Product development	Develop technologies that enable elimination of the use of scarce resources     Develop new vehicles with a higher ratio of recyclable components	6 Environmental	CO <sub>2</sub> Emissions Challenge	Introduce innovative technologies     Implement daily improvements     Introduce renewable energy			
Creation of	Production	Reduce waste from production and	Challenges	Challenge of Mi	nimizing and Optimizing Water Usage			
Closed Loop Economy	and logistics	logistics, and use resources effectively Initiatives for reducing water usage in			Use small amounts of water     Return purified water to nature			
		production activities Initiatives for reducing usage of		Challenge of Achieving Zero	Target: Reduce 12% (total global emissions) compared to FY2018			
		packaging materials and use resources effectively		Waste	Reduce to reach zero waste     Use resources from discarded vehicles in newly manufactured vehicles (Car to car)			
	Product development	Reduce gas emissions to help improve urban air quality in each country and			Reduce packaging materials and plastic packaging materials			
Environmental Conservation		region  Further reduce the use of		Challenge of Mi	finimizing the Impact on Biodiversity			
& Creation of	Production	environmentally harmful materials  • Reduce substances that impact the			Create plants that conserve greenery and water, and coexist in harmony with nature			
	and logistics	environment in production activities (VOC)		Air	Take measures to prevent air pollution in products and production			
	Social contribution	Implement biodiversity preservation activities locally at factories in every region where the Group operates		Water quality / Soil quality	Manage wastewater and prevent underground seepage in production     Prevent the spread of pollution during modifications and land transactions			
	Management	Strengthen and promote group	Compliance with laws	Noise / Vibrations	Reduce noise and vibrations in products and production			
Environmental Management	Ivianagement	environmental management	and regulations	Waste materials	Properly manage waste materials			
		Promote environmental activities in collaboration with business partners (our suppliers)	regulations	Chemical substances	Manage chemical substances and reduce hazardous substances in products and production			
		Improve global human resources development and training programs		Accident prevention	<ul> <li>Prevent environmental accidents (goal of zero violations and complaints, defects and reports)</li> </ul>			
		Actively disclose environmental information and enhance communication	Management		Create environmentally responsible human resources (communicate environmental management and conduct inhouse education)			



	Corporate	T M	The HINO	Realizing a	Environmental	Hino's Strategies and Initiatives	CSR	T:-		ESG In	itiatives		
ı	Information	Top Message	Credo & Course of Action	Sustainable World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment	Social	Governance	ESG data and others	

2020	Building Law sayban Casistu
Initiative Plan	<b>Building Low-carbon Society</b>







	tem	Specific Action Items/Targets, etc.	Fiscal 2016–2020 Achievements and Challenges for the future
Product development	Improve CO <sub>2</sub>	Develop technologies to meet world's top-class fuel efficiency standards [Japan] Develop technologies to improve fuel efficiency to meet next round of regulations Improve the performance of hybrid vehicles [United States] Develop technologies for enabling compliance with greenhouse gas emission regulations in 2020 [Europe] Develop technologies to improve fuel efficiency to meet the next round of regulations	<ul> <li>Improved fuel efficiency and reduced CO<sub>2</sub> emissions over earlier Hino Profia models by equipping the Hino Profia with the world's first hybrid system with AI</li> <li>Improved mass transport efficiency by jointly developing with Isuzu Motors the first hybrid articulated bus in Japan, a highly fuel efficient HEV.</li> <li>Launched the Connected service, HINO CONNECT to support eco-friendly driving by customers using the Eco Tree Report, a support tool for fuel saving</li> </ul>
	Promote the development of vehicles that run on clean energy	Conduct R&D on electric vehicles [FCEV] Develop and conduct limited sales of FCEV [BEV] Conduct R&D on practical implementation for trucks and buses  Conduct research on technologies for enabling the use of alternative fuels  Develop technologies that enable a switchover to biofuels and other alternative fuels	<ul> <li>Released onto the market SORA, an FCEV fixed-route bus developed with Toyota Motors, and began operations in Tokyo Future Challenge:</li> <li>Accelerate electric vehicle development through alliances with other parties in the same and different industries that have similar ambitions to quickly introduce and spread BEV and FCEV in the market</li> </ul>
Production and logistics	Initiatives for reducing CO <sub>2</sub> emissions in production activities	<ul> <li>Carry out initiatives for reducing CO<sub>2</sub> emissions on both a total and per-vehicle basis by introducing low-CO<sub>2</sub> production technologies, and reducing CO<sub>2</sub> through daily improvements</li> <li>Consider exploiting new energy-saving technology and renewable energy</li> <li>Targets:         <ul> <li>[Global]</li> <li>26% reduction in emissions per unit compared to FY2008</li> <li>[Consolidated Companies in Japan]</li> <li>24% reduction in emissions per unit compared to FY2008</li> <li>[Hino Motors, Ltd.]</li> <li>30% reduction in emissions per unit compared to FY2008</li> <li>Reduction in emissions: Fiscal 2020 output target x active mass</li> <li>Control emissions of other greenhouse gases besides CO<sub>2</sub></li> <li>Control emissions of other greenhouse gases besides CO<sub>2</sub></li> <li>Control emissions of other greenhouse gases besides CO<sub>2</sub></li> </ul> </li> </ul>	<ul> <li>Reduced CO2 emissions by introducing energy-saving innovative technologies         Improved efficiency of equipment motors, enabled inverter control for circulating water pumps, introduced ultrasonic cleaning machines, applied thermal insulation paint to heating furnaces</li> <li>Installed solar power equipment (Nitta Plant, Koga Plant)</li> <li>Results*:         [Global]         <ul> <li>Reduced emissions per unit by 27% compared to FY2008</li> <li>[Consolidated Companies in Japan]</li> <li>Reduced emissions per unit by 28% compared to FY2008</li> <li>[Hino Motors, Ltd.]</li> <li>Reduced emissions per unit by 37% compared to FY2008</li> <li>Emissions of fiscal 2020 were 158 thousand tons</li> </ul> </li> <li>Future Challenge:</li> <li>Further establish technologies for achieving medium-and-long-term targets to reduce CO2 and promote purchase of outside renewable energy</li> </ul>
	Make transportation more efficient and reduce CO <sub>2</sub> emissions in logistics	<ul> <li>Promote initiatives to reduce CO2 emissions in logistics by improving efficiency of transportation</li> <li>Shorten distribution routes between factories and improve shipping efficiency by using tractor-trailers and increasing transport loading rates</li> <li>Use more fuel-efficient vehicles</li> <li>Improve efficiency of vehicle parts shipments</li> <li>Targets:         <ul> <li>[Consolidated Companies in Japan]</li> <li>26% reduction in emissions per unit of transport volume compared to FY 2008</li> <li>[Overseas Operations]</li> <li>Set targets and promote reduction measures according to the highest standards in each country</li> </ul> </li> </ul>	Improved distribution efficiency between plants:  Achieved efficient transport of shipped vehicles (completed vehicle)  Reduced transport between bases using container loading at production sites  Promoted continued use of marine containers  Results:  [Consolidated Companies in Japan]  Reduced emissions per unit of transport volume by 28% compared to FY2008  Assessed impact of plant relocation and continued emissions reduction activities  [Overseas Operations]  Continued promoting emissions reduction activities in each country Improved transport efficiency in logistics industry:  Started commercialization of optimal mixed load patterns and cargo matching that exceeds barriers in shippers and transport vehicle manufacturers at NEXT Logistics Japan in December 2019 to reduce CO2 emissions through improved transport efficiency (awarded the Special Prize for the 22 <sup>nd</sup> Logistics Environment Award)
Sales and after-sales service	Initiatives for reducing CO <sub>2</sub> emissions in sales activities	<ul> <li>Create and execute plan to reduce energy consumption per unit by at least 1% per year at Japanese sales offices</li> <li>Assist customers in reducing CO<sub>2</sub> emissions</li> </ul>	<ul> <li>Reduced energy consumption rate per unit by 9.6% compared to FY2015 by installing energy-saving lighting, etc.</li> </ul>

<sup>\*</sup>Estimates are calculated from reported or derived values and available data. Actual emissions may vary.



Corporate	Ton Massace	The HINO	Realizing a	Environmental	Hino's Strategies and Initiatives	CSR	T:-		ESG In	nitiatives		ı
Information	rop Message	Credo & Course of Action	Sustainable World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment	Social	Governance	ESG data and others	ı

# 2020 Environment Initiative Plan Creation of Closed Loop Economy





		Specific Action Items/Targets, etc.	Fiscal 2016–2020 Achievements and Challenges for the future
Product development	Develop technologies that enable elimination of the use of scarce resources	Reduce the amount of precious metals used in exhaust-cutting catalytic converters	<ul> <li>Developed a diesel exhaust purification system using NOx selective reduction reaction with light oil         → Won the FY2020 Catalysis Society of Japan Award for Technological Progress</li> <li>Reason for winning:         Improved the air environment by reducing diesel exhaust gas and contributed to technological development in the field through long-term research and development     </li> </ul>
	Develop new vehicles with a higher ratio of recyclable components	Initiatives to create assembled structures that are easy to disassemble	<ul> <li>Incorporated considerations for recycling and disassembly in the design of vehicle structural components</li> <li>Contributed to effective use of resources by reducing vehicle body weight.</li> </ul>
Production and logistics	Reduce waste from production and logistics, and use resources effectively	Adopt waste reduction technologies and promote waste reduction in daily improvement activities Facilitate more effective usage of resources by improving yield rates and managing the sources of waste Promote the usage of resources within the Hino Motors Group Targets: [Consolidated Companies in Japan] 43% reduction of amount of waste generated per unit compared to FY 2008 Zero for final disposal amount* [Overseas Operations] Implement management that leads to reduced emissions (manage amounts)  *Definition of Zero: Landfill amount including ash after incineration is not more than 0.5% compared with total waste including recyclable waste	<ul> <li>Implemented thorough waste separation and recovered valuable materials from plastic waste</li> <li>Introduced automatic device for collecting paint gas (Hamura Plant)</li> <li>Reduced defective product rate and number of retests (Nitta Plant)</li> <li>Sold reclaimed sand to Group companies in Japan (Nitta Plant)</li> <li>Results:         <ul> <li>[Consolidated Companies in Japan]</li> <li>Reduced amount of waste generated per unit by 41% compared to FY2008</li> <li>Achieved a final disposal rate of 0.11%</li> <li>In the past, market changes resulted in valuable resources becoming waste and a reduction of per unit value. Targets were not reached for recovered waste by FY2020, but going forward Hino Motors will quickly reassess plans and continue carrying out waste-reduction activities through action such as promoting a greater recycling rate.</li> <li>[Overseas Operations]</li> <li>Waste Materials: Set targets and promoted reduction activities in each country</li> </ul> </li> </ul>
	Initiatives for reducing water usage in production activities	<ul> <li>Promote activities for reducing water consumption in consideration of water supply conditions in each country and region where the Group operates</li> <li>Conserve water through actively introduce watersaving technologies and daily improvements</li> <li>Targets:         <ul> <li>[Consolidated Companies in Japan]</li> <li>40% reduction of water usage per unit compared to FY 2008</li> <li>[Overseas Operations]</li> <li>Management of water usage reduction</li> </ul> </li> </ul>	<ul> <li>Improved underground piping and took measures against water leaks</li> <li>Introduced a dry booth (Koga Plant)</li> <li>Reused wastewater from cleaning on the paint line (Koga Plant Results:         <ul> <li>[Consolidated Companies in Japan]</li> <li>Reduced water usage per unit by 38% compared to FY2008</li> <li>In fiscal 2020, the consumption rate per unit worsened due to a drop in production volume and targets were not achieved. Looking ahead, Hino Motors will work toward efficient process planning not easily affected by fluctuations in production to promote water recycling and other water conservation actions.</li> </ul> </li> <li>[Overseas Operations]</li> <li>Set targets and promoted reduction activities in each country</li> </ul>
	Initiatives for reducing usage of packaging materials and use resources effectively	Reduce usage of packing and shipping materials by making them returnable and more lightweight  Enable use of returnable racks in more countries Improve methods of packing vehicle parts  Targets:  [Consolidated Companies in Japan]  57% reduction of shipment volume per unit compared to FY 2008  [Overseas Operations]  Ascertain use of packaging materials and expand reduction activities	<ul> <li>Shifted from wooden materials to cardboard</li> <li>Changed cardboard to returnable boxes</li> <li>Increased packing ratio to reduce cardboard usage</li> <li>Results:         <ul> <li>[Consolidated Companies in Japan]</li> <li>Reduced amount of packaging materials used per unit of shipment volume by 72% compared to FY2008</li> <li>→ Promote greater reduction activities going forward</li> <li>[Overseas Operations]</li> <li>Continued promotion of reduction activities in each country</li> </ul> </li> </ul>



Corporate	Ton Massage	The HINO	Realizing a		Hino's Strategies and Initiatives	CSR	Tenie		ESG In	itiatives		l
Information	Top Message	Credo & Course of Action	World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment	Social	Governance	ESG data and others	

2020 Environment Initiative Plan

**Environmental Conservation & Creation of Society Coexisting in Harmony with Nature** 



	ltem	Specific Action Items/Targets, etc.	Fiscal 2016–2020 Achievements and Challenges for the future
Product development	Reduce gas emissions to help improve urban air quality in each country and region	<ul> <li>Introduce vehicles with lower gas emissions to help improve urban air quality in each country and region         [Japan]         <ul> <li>Bring vehicles to market that comply with Japan's 2016 exhaust emission regulations</li> <li>Research and develop new technologies to comply with new exhaust regulations starting in 2016</li> <li>[United States]</li> <li>Bring vehicles to market that comply with US13, and develop vehicles that comply with U.S. exhaust emission standards effective from 2016</li> <li>[Europe and developed countries]</li> <li>Develop and bring vehicles to market that comply with EURO 6 exhaust emission standards</li> <li>[General]</li> <li>Introduce low-emission vehicles (close to EURO 4 or 5)</li> </ul> </li> </ul>	Made partial improvements to Hino Dutro (light-duty truck), Hino Liesse II (mini bus), and Hino Profia (heavy-duty truck) tractor series.
	Further reduce the use of environmentally harmful materials	Collect and manage information on increasing regulations in each country where the Group operates, and take the lead in switching to alternative materials	Collected information on chemical substances contained in parts to quickly address the growing number of regulated substances     Enhanced and promoted global chemical substance management
Production and logistics	Reduce substances that impact the environment in production activities (VOC)	Promote reduction of VOCs through daily improvements Reduce the use of painting materials and thinners in vehicle painting work  Targets in Body Painting Reduction: [Hino Motors, Ltd.] Reduction of VOC emissions by 22 grams per square meter of painted surface area [Overseas Operations] Broaden initiatives for VOC emissions reductions  Other Painting Work Targets: [Hino Motors, Ltd.] Set annual reduction targets on a per-vehicle basis every year [Overseas Operations] Implement management that leads to reduced emissions (manage amounts)	<ul> <li>Improved paint fixing efficiency when spraying paint</li> <li>Collected cleaning thinner when recoloring and cleaning</li> <li>Optimized painting range during automated painting</li> <li>Results:         <ul> <li>[Hino Motors, Ltd.]</li> <li>Achieved 15 grams of VOCs per square meter of painted surface area</li> <li>→ Promote initiatives relating to renovation plan for painting equipment and facilities and continued efforts to reduce volatile organic compounds (VOC) through daily improvements</li> <li>[Overseas Operations]</li> <li>Conducted research analysis to identify the cause of VOC volume change using constant volume and the trend management method</li> </ul> </li> </ul>
Social contribution	Implement biodiversity preservation activities locally at factories in every region where the Group operates	<ul> <li>Promote initiatives based on biodiversity guidelines</li> <li>Carry out regular activities in consideration of the unique ecosystems surrounding the factories in each country and region (including forest conservation and protection of local habitats)</li> <li>Undertake environmental conservation initiatives together with local residents and children</li> </ul>	<ul> <li>Implemented initiatives that take the surrounding ecosystem into account in each country and region [Japan]</li> <li>Maintained the cliff line in cooperation with local groups and municipalities (Hamura Plant)</li> <li>Cleared weeds using goats (Koga Plant)</li> <li>Conducted forest management and nature tour for the 70th anniversary of Hino Motors</li> <li>[Overseas Operations]</li> <li>Planted trees on plant grounds, etc. (Thailand, Indonesia, Pakistan, Philippines, etc.)</li> <li>Held classes at nearby schools (Pakistan)</li> </ul>



Corporate	Ton Massage	The HINO	Realizing a		Hino's Strategies and Initiatives	CSR	Tenie		ESG In	itiatives		l
Information	Top Message	Credo & Course of Action	World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment	Social	Governance	ESG data and others	

2020 Environment Initiative Plan

## **Environmental Management**

	ltem	Specific Action Items/Targets, etc.	Fiscal 2016–2020 Achievements and Challenges for the future
Management	Strengthen and promote group environmental management	[Japan and overseas companies]  Activities to ensure No.1 of environmental performance in each country and region  Comply with environmental laws in each country and region, and enhance activities to prevent environmental risks	<ul> <li>Issued periodic reports on environmental performance and improvement initiatives at group companies in and outside Japan</li> <li>Conducted environmental management that considers the entire life cycle of Hino products and required activities to reduce environmental risks</li> <li>Managed activity examples, data, etc. for overseas Group companies and used a self-assessment tool for activity levels</li> <li>Continued to hold seminars and workshops with the aim of further boosting capabilities going forward</li> </ul>
	Promote environmental activities in collaboration with business partners (Our suppliers)	[Suppliers]  Compliance with laws by suppliers, and enhance management of substances that impact the environment contained in parts, raw materials, secondary materials, production equipment, etc.	<ul> <li>Managed environmentally hazardous substances throughout the life cycle and tackled improving environmental performance, especially implementing measures for achieving carbon neutrality in light of climate change</li> <li>Administered environmental questionnaires in each company to manage environmentally hazardous substances and share the current state of endeavors</li> <li>Took into account global trends in environmental laws and began strengthening and operating internal management systems for environmentally hazardous substances</li> <li>Revised the Green Purchasing Guidelines</li> <li>Periodically confirmed supplier compliance with requests for environmental considerations and cooperation, environmental performance, etc.</li> </ul>
	Promote environmental activities in collaboration with business partners (Dealers and distributors)	[Sales in Japan] Promote environmental activities by sales companies via each Environmental Management System. [Sales outside Japan] Grasping the burden on the environment and act continually to raise awareness of the environment	[Consolidated subsidiaries in Japan] Conducted environmental improvement activities at 223 dealers nationwide, including 2 new dealers Supported improvements and upgrades to conclude EMD certification at 223 dealers nationwide [Overseas Sales Operations] Shared environment-related data monthly with overseas sales offices Held events to promote environmental awareness during JAPAN Environment Month in June
	Improve global human resources development and training programs	Systematically implement environmental education     Further enhance awareness training programs for every employee	Conducted ISO internal environmental audit education     President delivered a message for environmental month (June)     The Company will continue actively taking initiatives to improve the environment, including planning events featuring employee participation.
	Actively disclose environmental information and enhance communication	<ul> <li>Enhance provision of information on product environmental technologies in each country and region (e.g. exhibiting at expos)</li> <li>Continually publish sustainability reports and other documents in each country and region, and publish at more sites to enhance environmental communication in each country and region</li> </ul>	<ul> <li>Actively communicated topics on environmental initiatives and new technologies in news releases</li> <li>Hino USA announced Project Z—The road to zero emissions in the USA</li> <li>Launched demonstration tests for heavy-duty fuel cell trucks from around spring 2022</li> <li>Participated in the Japan Hydrogen Association</li> <li>Toyota and Hino began efforts aiming to introduce light-duty fuel cell trucks</li> <li>Hino Profia Hybrid won the "Minister Prize of Economic, Trade and Industry" (transportation field)</li> <li>Published a sustainability report every year on the official website to disclose information and outcomes of environmental promotional activities</li> </ul>



Corporate	T M	The HINO	Realizing a		Hino's Strategies and Initiatives	CSR	T:-		ESG In	itiatives		
Information	rop message	Credo & Course of Action	World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment	Social	Governance	ESG data and others	ı

## 2025 Environmental Initiative Plan

Majo	r Item	Initiative	Action plan, targets, etc.
			Target: Reduced 12% (per unit transportation volume*) compared to FY2013  *CO2 emissions during transport per kilometer for a 1-ton load or per kilometer for 1 person
	Life Cycle Zero CO <sub>2</sub> Emissions Challenge	Reduce CO <sub>2</sub> emissions in all processes: manufacturing, transport, use, disposal (collaborate with each country and industry)	<ul> <li>Manufacturing (materials, components, fuel manufacturing)        Initiatives for plant-related CO<sub>2</sub> in vehicle production         <ul> <li>Reduce amount of materials used and number of components</li> <li>Develop and expand use of low-CO<sub>2</sub> materials</li> <li>Expand use of recycling materials</li> <li>Implement reduction activities conducted with cooperation from stakeholders, including suppliers</li> <li>Implement activities to spread renewable energy and green hydrogen in collaboration with governments in each country and the fuel industry</li> </ul> </li> <li>Transport (components distribution)         <ul> <li>Reassess distribution between plants and transport routes for completed vehicle and improve shipping efficiency</li> <li>Improve efficiency by using tractor-trailers and conduct a modal shift</li> <li>Improve efficiency of vehicle components shipments</li> </ul> </li> <li>UseInitiatives for new vehicle CO<sub>2</sub></li> <li>Disposal (including maintenance)</li> <li>Reduce CO<sub>2</sub> by using LED lights, and HEV and BEV as company cars at sales companies</li> <li>Introduce renewable energy power facilities at sales companies and purchase renewable energy</li> <li>Implement environmentally conscientious design (easy-to-disassemble, easy-to-recycle designs)</li> </ul>
			Target: Reduced 15% (per unit transportation volume) compared to FY2013
6 Environmental Challenges	New Vehicle Zero CO <sub>2</sub> Emissions Challenge	Develop and bring electric vehicles to market	Conduct technical development of electric vehicles and bring to market FCEV: Develop FCEV and run verification tests for heavy-duty FCEV trucks, etc. BEV: Develop BEV and bring to market the Hino Dutro Z EV (light-duty BEV truck), Hino Poncho Z EV (light-duty BEV bus), etc.
		Improve diesel consumption	Conduct technological development to comply with new fuel economy standards in each country and bring to market Japan: Conduct technological development to comply with JH25 and bring to market  United States: Conduct technological development to comply with EPA and CARB2024 and bring to market  Europe: Promote development of technologies to improve fuel efficiency to meet the next round of regulations  Promote research on technologies for alternative fuels  Develop technologies for carbon neutral fuels
		Initiatives for improved transport efficiency	<ul> <li>Maximize transport efficiency in the logistics industry</li> <li>Improve shipping efficiency by mixing various loads that exceed industry types</li> <li>Achieve mass transport by utilizing double trailer-trucks</li> <li>Improve distribution efficiency by utilizing information on vehicles, loads, and drivers</li> </ul>
			Target: Reduced 30% (total global emissions) compared to FY2013
	Factory Zero CO <sub>2</sub> Emissions Challenge	Introduce innovative technologies	<ul> <li>Introduce new low-carbon technologies when upgrading and for new vehicle types         Ex.: Airless painting, dry booth, etc.     </li> <li>Research new technology trends outside the company and consider introducing</li> </ul>
		Promote daily improvements	<ul> <li>Maximize CO<sub>2</sub> emissions reduction through repeated, daily improvements         Ex.: Shorten work hours, concentrate equipment, consolidate processes, etc.     </li> <li>Reduce CO<sub>2</sub> by introducing high-efficiency equipment         Ex.: LED lights, motors, air conditioning, etc.     </li> </ul>
		Introduce renewable energy	<ul> <li>Accelerate solar panel installation on company grounds (onsite)</li> <li>Shift to optimal renewable energy power (solar and hydroelectric power generation) that considers the power circumstances in each country and region</li> </ul>



Corporate Information	Corporate	T M	The HINO	Realizing a	Environmental	Hino's Strategies and Initiatives CSR	CSR	CSR Tania	ESG Initiatives		
	Top Message	Credo & Course of Action	World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment Social	Governance   a	ESG data ind others	

## **2025 Environmental Initiative Plan**

Majo	or Item	Initiative	Action plan, targets, etc.					
		Target: Implement initiatives for efficiently reducing water usage (all plants worldwide)						
	Challenge of Minimizing and Optimizing Water Usage	Use small amounts of water	<ul> <li>Actively introduce new water-saving technologies, such as a dry booth for painting</li> <li>Promote water conservation through daily improvements such as repairing water leaks, and optimizing water sprinkling and shower volume</li> <li>Conduct water usage risk assessment and water reduction activities that consider water supply conditions in each country and region</li> </ul>					
		Return purified water to nature	Conduct wastewater risks assessment at each site in each country					
		Target: Reduced 12% (total global emissions) compared to FY2018						
6 Environmental	Challenge of Achieving Zero Waste	Reduce to reach zero waste	<ul> <li>Considering the introduction of innovative new technology         Ex.: Waste sand recycling equipment, waste-to-fuel conversion equipment, etc.     </li> <li>Promote activities for daily improvements         Ex.: Measures for managing waste sources by improving yield rates, reducing evaporation, etc.     </li> <li>Reduce waste by recovering valuable materials and recycling</li> </ul>					
Challenges	رجي	Use resources from discarded vehicles in newly manufactured vehicles (Car to car)	Develop collection technologies for rare metals and natural resources     Develop technologies for improving recycling ratio					
		Reduce packaging materials	<ul> <li>Improve packaging methods to reduce usage and expand returnables</li> <li>Switch to plastic alternatives in packaging materials</li> <li>Target: In consolidated companies in Japan, packaging material per unit of volume that is below FY2018</li> </ul>					
		Target: Establish 2 model factories that coexist in harmony with nature						
	Challenge of Minimizing the Impact on Biodiversity	Create factories that conserve greenery and water, and coexist in harmony with nature	<ul> <li>Plant trees inside and outside office grounds that aim to conserve greenery and water, secure rare species, and promote river cleanup activities</li> <li>Promote conservation activities that employees and local schools, etc. tackle together</li> <li>Ex.: Employee education, environmental classes with nearby schools, etc.</li> </ul>					



Corporate Information	Corporate	T M	The HINO	Realizing a	Environmental	Hino's Strategies and Initiatives CSR	CSR	CSR Tania	ESG Initiatives		
	Top Message	Credo & Course of Action	World	Management	and the Sustainable Development Goals (SDGs)	Management	Topic	Environment Social	Governance   a	ESG data ind others	

## **2025 Environmental Initiative Plan**

Major Item		Initiative	Action plan, targets, etc.				
	Air	Take measures to prevent air pollution in products	<ul> <li>Comply with legal standards for gas emissions in products such as NOx, PM, VOC, etc.</li> <li>Introduce vehicles with lower gas emissions to help improve air quality in each country and region</li> <li>Japan: Bring vehicles to market that comply with the Future Policy for Motor Vehicle Emission Reduction (Fourteenth Report) (PN standards)</li> <li>United States: Bring vehicles to market that comply with EPA and CARB 2024</li> <li>General: Promote introduction of low-emission vehicles (EURO 4, 5 or 6 level)</li> <li>Promote R&amp;D to meet the next round of regulations, etc.</li> </ul>				
		Take measures to prevent air pollution in production	<ul> <li>Comply with legal standards for gas emissions in equipment such as NOx, PM, VOC, etc.</li> <li>Reduce VOC emissions by improving painting efficiency and collecting thinner in the painting process</li> <li>Target: Emissions volume per unit area that is below FY2018</li> </ul>				
	Water quality / Soil quality	Manage wastewater and prevent underground seepage in production	Establish independent standard values for wastewater and improve wastewater quality through very frequent monitoring				
Compliance with laws and		Prevent the spread of pollution during modifications and land transactions	<ul> <li>Confirm based on regulations when buying new land, selling, and leasing</li> <li>Ascertain degree of contamination when modifying land on property and issureport</li> </ul>				
regulations	Noise / Vibrations	Reduce noise and vibrations in products	Comply with vehicle noise laws in each country and region				
		Reduce noise and vibrations in production	<ul> <li>Reduce noise and vibrations of plant equipment and on property borders, and implement initiatives to comply with standards</li> <li>Conduct review in advance when purchasing new plants and equipment, and confirm outcomes after purchase</li> </ul>				
	Waste materials	Properly manage waste materials	Conclude contracts for general waste and industrial waste, and appropriately outsource disposal				
	Chemical substances	Manage chemical substances and reduce hazardous substances in products	<ul> <li>Implement total management through data on chemical substances contained in products</li> <li>Implement solid transition for regulated substances used in materials and components</li> </ul>				
		Manage chemical substances and reduce hazardous substances in production	<ul> <li>Manage prohibited substances in subsidiary and secondary materials used at production plants</li> <li>Reduce use of subsidiary and auxiliary materials, and reduce environmental load by switching to alternatives</li> </ul>				
	Accident prevention	Prevent environmental accidents (zero violations and complaints, defects and reports)	<ul> <li>Spread throughout plants and offices in the Hino Group by analyzing causes of past incidents</li> <li>Standardize work handling liquids, etc. by creating environmentally responsible human resources</li> </ul>				
Management		Promote the creation of environmentally responsible human resources	<ul> <li>Make rules for environmentally responsible human resources and roll out at each plant</li> <li>Implement environmental education for employees at each level and promote human resource cultivation</li> <li>Systematically implement awareness-raising activities</li> </ul>				