

Environmental Management

Environment Initiative Plan

2010 Environment Initiative Plan

Frame	Field	No.	Item	Specific Action Items/Targets, etc.										
Building a Low-carb on Society	Development & Design	1	Develop and promote next-generation vehicle based on energy diversity	<p><Electrical Energy> Hybrid vehicle (HV): Develop and market new HV Inductive Power Transfer System (IPS): Develop IPS bus for commercialization Fuel cell (FC): Research and develop fuel-cell automobile</p> <p><Alternative Fuels> New fuels: Research and develop vehicle that will run on GTL(Gas to Liquids) fuel Biofuels: Research and develop vehicle that will run on biofuel</p>										
		2	Develop top-class fuel efficiency performance in each country/region, and meet standards in each country	<p>Develop technologies to meet world's top-class fuel efficiency standards</p> <ul style="list-style-type: none"> -Japan: Achieve FY 2015 fuel-efficiency standard -United States: Meet 2014 new standards for fuel efficiency and greenhouse gases in heavy vehicles -Europe: Develop technologies to improve fuel efficiency to meet next round of regulations -China: Consistently meet new fuel-efficiency standards -Other regions: Promote technologies to meet fuel-efficiency regulations 										
	Production & logistics	3	Thoroughly conserve energy and reduce greenhouse gas emissions in production activities	<p>Act throughout the company to build low-carbon production system Actively Introduce low-CO₂ production technologies, and reduce CO₂ through daily improvements Consider to exploit renewable energy</p> <p>Energy Derived CO₂</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td>Global</td> <td rowspan="2">Emissions per unit yield</td> <td rowspan="2">4% less than FY 2008</td> </tr> <tr> <td>Japan Group</td> </tr> <tr> <td>Hino</td> <td>Emissions</td> <td>12% less than FY 1990 (Average from FY2008 to FY2012)</td> </tr> </tbody> </table>	Region	Item	FY 2012 Target	Global	Emissions per unit yield	4% less than FY 2008	Japan Group	Hino	Emissions	12% less than FY 1990 (Average from FY2008 to FY2012)
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4	Make transportation more efficient and reduce	<p>Promote initiatives to reduce CO₂ emissions in logistics by improving efficiency of transportation.</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td>Japan</td> <td>Emission per unit of</td> <td>12% less than FY</td> </tr> </tbody> </table>	Region	Item	FY 2012 Target	Japan	Emission per unit of	12% less than FY						
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			CO2 emissions in logistics	<table border="1"> <tr> <td>Group</td> <td>transport*</td> <td>2008</td> </tr> <tr> <td>International</td> <td colspan="2">Set target and promote reduction activities</td> </tr> </table> <p>*Definition of "unit of transport": multiply freight(in ton) by distance(km)</p>	Group	transport*	2008	International	Set target and promote reduction activities									
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	Sales	5	Thoroughly conserve energy and reduce CO2 emissions in sales activities	Continual improvement at Japanese and international sales offices; thoroughly conserve energy through lateral deployment of case studies Create and execute plan to reduce energy consumption per unit by at least 1% per year														
	Collaboration with society	6	Active communication and contribution to climate change mitigation policies	Promote initiatives to build low-carbon society through Japan Business Federation, Japan Automobile Manufacturers Association, etc. -Participate in environmental policy debate and framework creation -Integrated initiatives in partnership with JAMA, etc.														
		7	Integrated CO2 reduction initiatives in road traffic sector (transportation division)	Contribute to initiatives to improve transportation using IT and ITS technologies Promote initiatives to raise awareness of environmentally friendly driving -Provide workshops on fuel-efficient driving at Customer Technical Center at Hamura plant, Japan. -Provide workshops at sales companies in Japan and internationally -Expand issuance of environmentally friendly driving certifications to customers -Develop vehicles that perform logistics efficiently, in accordance with customer usage														
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Creation of Closed Loop	Development & design	8	Further promote recycling design with awareness of effective use of resources	Initiatives to create assembled structures that are easy to disassemble Use more parts made using recycled materials														
	Production & logistics	9	Reduce discharges from production and logistics, and use resources effectively	<p><Amount of Discharges & Final Disposal> Reduce discharges at source, e.g. by improving yields Reduce waste by encouraging reuse within the company Encourage use of valuable materials within Hino Group Zero final disposal to landfill</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Object</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Japan Group</td> <td>Discharges *1</td> <td>Generated per unit yield</td> <td>16% less than FY 2008</td> </tr> <tr> <td>Final disposal</td> <td colspan="2">Zero *2</td> </tr> <tr> <td>International</td> <td>Waste</td> <td colspan="2">Set target and promote reduction activities</td> </tr> </tbody> </table> <p>*1: Definition: Discharges to outside company including salable waste. *2: Definition of Zero: Landfill amount including ash after incineration is not more than 0.5%, compared with total waste including recyclable.</p> <p><Packaging Materials> Enable use of returnable racks in more countries</p>	Region	Object	Item	FY 2012 Target	Japan Group	Discharges *1	Generated per unit yield	16% less than FY 2008	Final disposal	Zero *2		International	Waste	Set target and promote reduction activities
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Economy				<p>Expand use of returnable racks for spare parts</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td>Japan Group</td> <td>Use per unit of shipment volume</td> <td>34% less than FY 2008</td> </tr> <tr> <td>International</td> <td colspan="2">Set target and promote reduction activities</td> </tr> </tbody> </table> <p><Water Usage> Actively introduce water-saving technologies Conserve water through continual improvement</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td>Japan Group</td> <td>Water use per unit yield</td> <td>18% less than FY 2008</td> </tr> <tr> <td>International</td> <td colspan="2">Set target and promote reduction activities</td> </tr> </tbody> </table>	Region	Item	FY 2012 Target	Japan Group	Use per unit of shipment volume	34% less than FY 2008	International	Set target and promote reduction activities		Region	Item	FY 2012 Target	Japan Group	Water use per unit yield	18% less than FY 2008	International	Set target and promote reduction activities	
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	Sales & recycling	10	<p>Enhance global promotion of effective use of resources</p> <p>Promote global compliance with automobile recycling laws</p>	<p>Develop tools and offer information globally on efficient disassembly methods</p> <p>Promote initiatives within group to expand use of used parts</p> <p>Japan: Maintain top recycling level, and respond appropriately to revisions to law China & emerging economies: Respond appropriately to regulations of each country</p>																		
Environmental Conservation & Creation of Society Coexisting in Harmony with Nature	Development & design	11	Reduce gas emissions to help improve urban air quality in each country and region	<p>Introduce vehicles with lower gas emissions to help improve urban air quality in each country and region</p> <p>-Japan: Continue to bring vehicles to market that comply with Post New Long-term Regulations Research and develop new technologies to comply with new exhaust regulations starting in 2016</p> <p>-United States: Bring vehicles to market that comply with US10</p> <p>-Europe: Research, development, and compliance with new EURO6 regulations</p> <p>-China: Promote introduction of EURO5 level</p> <p>-In general: Introduce low-emission vehicles (EURO3 or 4 level)</p>																		
		12	Expand and enhance management of chemicals contained in products	<p>Promote global management of chemicals in products</p> <p>-Thoroughly manage multiple chemical substances contained in products</p> <p>-Develop technologies to substitute substances with lower environmental impact, and promote substitution</p>																		
	Production	13	Reduce substances that impact the environment in production activities	<p>Reduce usage of paints and paint thinner in painting processes, etc. promote reduction of VOCs through constant improvement</p> <p>Body Painting</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Item</th> <th>FY 2012 Target</th> </tr> </thead> <tbody> <tr> <td>Hino</td> <td>VOC Emissions per surface area painted</td> <td>Not more than 24 g/m² (Average for all lines)</td> </tr> <tr> <td>International</td> <td colspan="2">Activities to reduce VOC emissions in each country</td> </tr> </tbody> </table>	Region	Item	FY 2012 Target	Hino	VOC Emissions per surface area painted	Not more than 24 g/m ² (Average for all lines)	International	Activities to reduce VOC emissions in each country										
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	Collaboration with society	14	<p>Commitment to biodiversity</p> <p>Promote contributions to society that help create society coexisting in harmony with nature</p>	<p>Give consideration to local ecosystems in each country and region</p> <p>Raise employees' awareness of protecting ecosystems, and encourage volunteering (Promote activities based on Japan Business Federation Declaration of Biodiversity)</p>				
Environmental Management	Management	15	Strengthen and promote group environmental management	<p>Activities to ensure top level of environmental performance in each country and region</p> <p>Comply with environmental laws in each country and region, and enhance activities to prevent environmental risk</p> <p>Introduce area management organizations at production sites outside Japan, and promote rational initiatives</p> <p>Improve level of environmental management through mutual audits by each company at production sites in Japan</p>				
		16	Promote environmental activities in collaboration with business partners	<p>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.</p> <p>Request for environmental performance activities</p> <p>Sales in Japan: Promote environmental activities by sales companies via each Environmental Management System.</p> <p>Sales outside Japan: Act continually to raise awareness of the environment</p>				
		17	Promote global CO ₂ management	Plan and promote CO ₂ management in all business activities				
		18	Promote environmental management ECO-VAS in product development	Ensure management of environmental targets during development using vehicle environmental assessment system (ECO-VAS)				
		19	Promote "sustainable-plant" activities	<p>Plant designs in harmony with nature.</p> <p>Actively introduce low CO₂ production technologies, and promote continual improvement, exploit renewable energy, and forest creation in and around plants.</p>				
		20	Enhance and promote environmental education	<p>Systematic environmental education that raises employees' awareness of the environment</p> <p>Continually survey employees' environmental awareness, and raise awareness in accordance with results</p> <p>Roll out group activities for Environment Month in partnership with Toyota Group</p>				
		21	Actively disclose environmental information and enhance communication	<p>Enhance provision of information on product environmental technologies in each country and region (e.g. exhibiting at expos)</p> <p>Continually publish CSR reports and other documents in each country and region, and publish at more sites</p> <p>Enhance environmental communication in each country and region</p>				

*Japanese Fiscal Year runs from April 1 to March 31.