

Environment

Summary

Environmental Policy

Based on the corporate philosophy, FHI recognizes the global environmental issue as one of the most important management issues and had set the environmental policy

on April 1998. FHI strives to be a socially responsible company for realizing sustainable society.

Environmental Policy [Established in April 1998, revised in March 2010]

In recognition of the close relationship between the global environment and business activities, we will deliver "Green Products" from "Clean Plants and Offices" through "Green Logistics" and "Clean Dealers" to customers in order to ensure the sustainable development of the society.

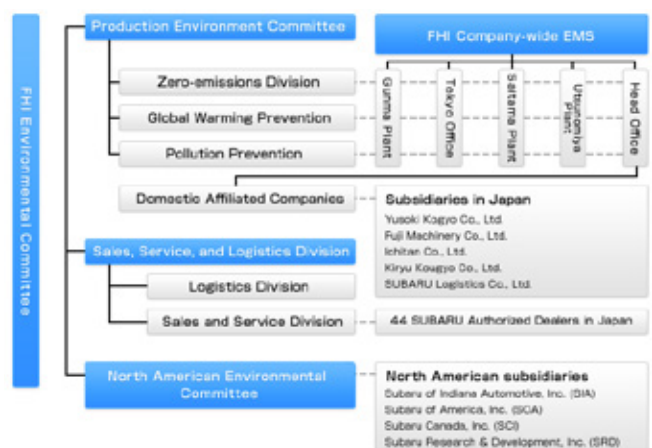
Also, while strictly observing laws and regulations, local agreements and industrial codes, we will commit ourselves to contributing to society and local communities, voluntary ongoing improvement and the prevention of pollution.

- Green Products...Design and R&D of environment-friendly SUBARU brand products written CSR Policy
- Clean Plants...Reduction of environmental burden in the production process
- Clean Offices...Reduction of environmental burden through our business operations
- Green Logistics...Reduction of environmental burden in the distribution of products
- Clean Dealers...Support to dealerships in their environmental preservation activities
- Upgrading of Management...Contribution to the society, information disclosure and stepped up environmental activities by the whole SUBARU Group

Organization

Established to implement the Environmental Policy and Voluntary Plan for the Environment, FHI's environmental management organization comprises two main entities that cross corporate divisions: the Company-wide Environmental Management System (EMS) and the Environmental Committee.

Serving as the head of the Company-wide EMS and the chairperson of the Environmental Committee, the director responsible for environmental issues conducts environmental reviews twice a year. We proactively implement environmental protection activities, comprehensively managing our progress and continuously revising the direction of future efforts.

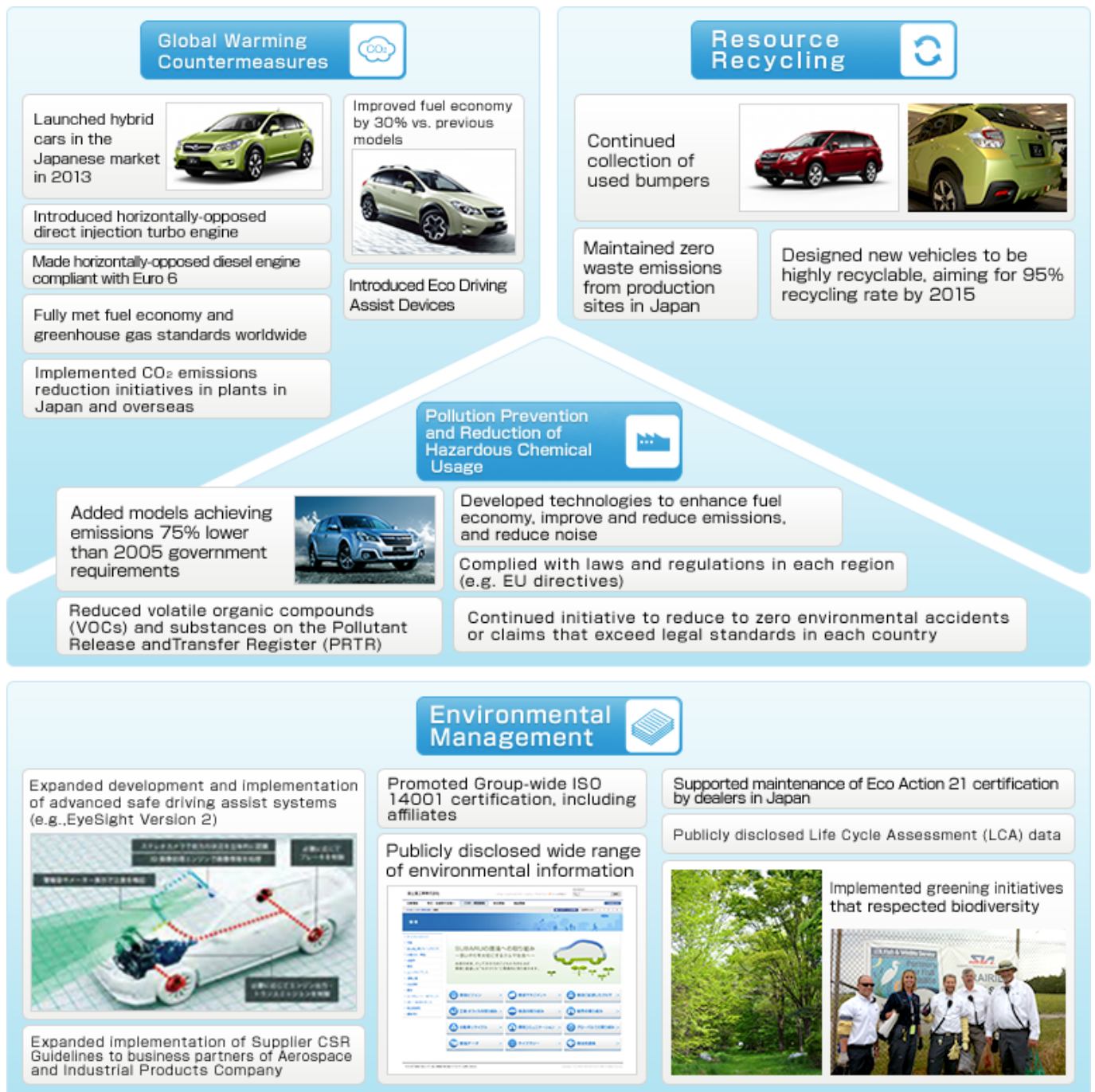


Summary of 5th Voluntary Plan for the Environment (FY2013 to FY2017)

FHI has established the 5th Voluntary Plan for the Environment for the period FY2013 to FY2017. Based on our Environmental Policy, we have set even higher environmental protection targets while adding new environmental measures to ensure compliance with laws and regulations and to foster cooperation on environmental issues within the automobile industry. Based on this plan, we will contribute to society through our products, striving always to produce even greener

products at green plants and offices and delivering them to customers via green logistics and green dealers.

Our entire Group shares this plan and works together to ameliorate and eliminate environmental problems on a continuous basis. Our environmental initiatives introduced here are categorized into four groups: global warming countermeasures, resource recycling, pollution prevention and reduction of hazardous chemical usage, and environmental management.



[1] Global Warming Countermeasures

Field	Item	Target/Initiative (FY2017)	FY2013			FY2014		
			Target	Results	Evaluation	Target		
Green Products	Improving fuel economy	◆ Continue to improve fuel economy through full model changes and annual model changes.	◇ Improve fuel economy by 30% compared with previous models through innovative shift to environmental engines/CVT. ◇ Introduce horizontally opposed direct-inject engines to the market.	Improve fuel economy at the time of full model changes and annual model changes. Introduce the direct-injection turbo engine and environmental CVT to the market.	Introduced LEGACY and FORESTER equipped with the newly developed direct-injection engine + CVT to the market.	○	Promote the development of fuel economy improvement measures for each model's full model change.	
		◆ Improve fuel economy to ensure compliance with fuel economy/GHG emissions standards in each country/region.	◇ Japan: Meet the 2015 Fuel Economy Standards without fail. ◇ Overseas: Meet the fuel economy/GHG emissions standards in each region.	Continuously conduct fuel economy and CO ₂ monitoring in Japan and Europe.	Japan: Met the 2015 Fuel Economy Standard for four out of nine categories. Europe: Reduced CO ₂ emissions by 5% compare to the 2011 result, and cleared the regulation with ease.	○	Continuously conduct the fuel economy monitoring in China in addition to Japan and Europe.	
	Using clean energy	Automobiles	◆ Release a hybrid car into the market.	◇ Release a hybrid car into the Japanese market in 2013.	Surely complete the development of the new hybrid system.	Completed the development of the new hybrid system for the Japanese market, and ensured the introduction of hybrid models to the Japanese market in 2013 early summer.	○	Promote further improvement of the hybrid system.
			◆ Conduct research to release EVs in the market.	◇ Foster research into EVs.	Continuously promote research for future introduction of EVs to the market.	Conducted survey in the US and other markets in consideration of PHEV introduction.	○	Continuously promote research for introduction of EV and PHEV to the market.
		◆ Improve diesel engines to expand their sales in the market.	◇ Promote measures to comply with the Euro 6 regulation for horizontally-opposed diesel engines.	Transfer the advanced development of the Euro 6 regulation-compatible technologies to mass-production development.	The development stage has been transferred to the mass-production stage.	○	Promote introduction of horizontally-opposed diesel engines with taking advantage of the Euro 6 regulation compliant technologies.	
	Curbing global warming regarding air conditioning refrigerants	Automobiles	◆ Establish technologies to reduce exhaust gas and improve fuel economy by applying electronic control to general-purpose engines.	◇ Increase the number of models for fuel-injection general-purpose engines and foster their market introduction.	Design the fuel-injection system for EX40 general-purpose engines, and evaluate the system of the first sample model.	Conducted system evaluation of the first sample model. Power and exhaust gas level has been improved while problems with the system stability have been ascertained.	○	Continuously take measures for establishing the production specification of fuel-injection system.
			◆ Promote the development of air conditioners using refrigerants with low global warming potentials.	◇ Further promote the development of air conditioners using refrigerants with low global warming potentials.	Promote the development of air conditioners using refrigerants with low global warming potentials.	Expanded introduction of models equipped with air conditioners using refrigerants with low global warming potential in some region.	○	Promote the development of air conditioners using refrigerants with low global warming potentials.
	Clean Plants, Logistics and Offices	Manufacturing plants	◆ Reduce CO ₂ emissions per unit of sales at domestic manufacturing plants.	◇ Reduce CO ₂ emissions per unit of sales by 10% from the FY2007 level by FY2017 at domestic manufacturing plants.	Reduce CO ₂ emissions per unit of production at domestic manufacturing plants by 6% from the FY2007.	Reduced CO ₂ emissions per unit of production at domestic manufacturing plants by 29% compared with FY2007.	○	Reduce CO ₂ emissions per unit of production at domestic manufacturing plants by 7% compared with FY2007.
			◆ Foster CO ₂ emissions reduction activities at overseas manufacturing plants.	◇ Set the medium-term CO ₂ emissions reduction targets and conduct activities to attain them at overseas manufacturing plants.	Set the FY2014 CO ₂ emissions reduction targets (147,000 ton-CO ₂ or less).	Set the FY2014 CO ₂ emissions reduction targets. Cleared the FY2013 CO ₂ emissions reduction targets.	○	Set the FY2015 CO ₂ emissions reduction targets.
		Logistics	◆ Foster CO ₂ emissions reduction activities synchronized with the Act on the Rational Use of Energy.	◇ Reduce per-unit energy use by 1% every year. (comparing to: FY2007)	Set the target per-unit energy use in Japan and overseas at 32.21 kg.	Achieved 31.36 kg of per-unit energy use, and cleared the target. (6% reduction from the FY2007 target, and 8.3% reduction from the FY2007 result.)	○	Aim to reduce 7% of per-unit CO ₂ emissions compare to FY2007.
Offices		◆ Ensure compliance with the Act on the Rational Use of Energy.	◇ Reduce per-unit energy use by 1% across the company (including offices) every year. (Comparing to: FY2010)	Reduce per-unit energy use by 3% comparing to FY2010. Target per unit = 13.46 kL/one hundred million yen.	Reduced per-unit energy use by 16.3% comparing to FY2010. Achievement per unit = 11.56 kL/one hundred million yen.	○	Achieve 4% reduction of per-unit energy use compare to FY2010. Target per unit = 13.32 kL/one hundred million yen.	

■ [2] Resource Recycling

Field	Item		Target/Initiative (FY2017)	FY2013			FY2014	
				Target	Results	Evaluation	Target	
Green Products	Improving recyclability	Automobiles	<ul style="list-style-type: none"> ◆ Continue to implement measures to comply with the Act on Recycling, etc. of ELVs. ◆ Continue to implement measures to make parts and materials more detachable/ separable. 	◇ Promote design suitable for recycling for new models to increase the actual recycling rate to 95% by 2015.	Promote design suitable for recycling for new models to increase the actual recycling rate to 95% by 2015.	Maintained more than 95% of recycling rate. Expanded the use of olefin resin in new models to foster the 3Rs and designed products giving more consideration to their recyclability, for example by decreasing the number of components.	○	Continuously maintain more than 95% recycling rate.
			<ul style="list-style-type: none"> ◆ Continue the appropriate disposal of waste and the suppression of waste generation. 	◇ Continue the appropriate management of waste and the suppression of waste generation by increasing the yield and packaging methods.	Suppress the volume of waste generation to 21,874 tons or less.	Cleared the target with 15,802 tons of waste generation. Continuously conducting compliance management.	○	Suppress waste generation to 15,861 tons or less. Continue the appropriate management of waste and the suppression of waste generation.
Clean Plants and Offices (Dealers)	Manufacturing plants		<ul style="list-style-type: none"> ◆ Continue zero emissions (zero landfill waste either directly or indirectly) at both domestic and overseas plants. 	◇ Continue zero emissions at both domestic and overseas plants.	Japan: Maintain zero emissions Overseas: Maintain zero emissions	Japan: Maintaining zero emissions Overseas: Maintaining zero emissions	○	Japan: Maintain zero emissions Overseas: Maintain zero emissions
			<ul style="list-style-type: none"> ◆ Reduce water use at both domestic and overseas plants. 	◇ Reduce water use across Group companies in and outside Japan.	Reduce water use per production at domestic plants by 1% compare to FY2012.	Reduced water use per production at domestic plants by 19% compare to FY2012. (Since the production number has increased, water use per production at overseas plants has been slightly increased compare to FY2012.)	○	Reduce water use per production at domestic plants by 2% compare to FY2012. Reduce water use at overseas plants.
		Offices (Domestic dealers)	Automobiles	<ul style="list-style-type: none"> ◆ Ensure compliance with the Act on the Rational Use of Energy. 	◇ Continue the recovery of used bumpers.	Establish the new recycle scheme for used bumpers without compliance risks.	The new scheme was completed, and has been applied since April 2013. Result of FY2013 was 34,142 bumpers.	○

■ [3] Pollution Prevention and Reduction of Hazardous Chemical Substance Usage

Field	Item		Target/Initiative (FY2017)	FY2013			FY2014	
				Target	Results	Evaluation	Target	
Green Products	Reduction in exhaust gas	Automobiles	<ul style="list-style-type: none"> ◆ Foster the introduction of low-emission vehicles for the improvement of air quality. 	<ul style="list-style-type: none"> ◇ Japan: Increase the number of FHI's automobile models achieving emissions by 75% lower than the 2005 emission standards. ◇ Overseas: Foster the introduction of low-emission vehicles to improve air quality in each country and region. 	<p>Japan: Increase the number of models achieving emissions by 75% lower than the 2005 emission standards.</p> <p>Overseas: Foster the introduction of low-emission vehicles in each country and region.</p>	<p>Japan: The rate of low-emission vehicles has increased to 97% from the 2011 achievement of 94%.</p> <p>Overseas: Transition to Euro 5b has completed in Europe. In China, acquired an approval prior to the introduction of the new emission regulations.</p>	○	<p>Japan: Continuously increase the number of models achieving emissions by 75% lower than the 2005 emission standards.</p> <p>Overseas: Continuously introduce low-emission vehicles in each country and region.</p>
			Reduction in noise	<ul style="list-style-type: none"> ◆ Develop technologies to achieve higher fuel economy and reduction in exhaust gas and noise. 	<ul style="list-style-type: none"> ◇ Develop noise reduction technologies in consideration of the driving conditions on urban roads. 	<p>Promote the development of technologies that reduce environmental noise and offer enjoyment of driving.</p>	<p>Tried to achieve both environmental consideration and enjoyment of driving by introducing the new hybrid system to Japanese market.</p>	○
	Reduction in the use of substances of concern	<ul style="list-style-type: none"> ◆ Foster management and reduction in the use of substances of concern. ◆ Overseas: Ensure compliance with related laws and regulations, including the EU directives. 	<ul style="list-style-type: none"> ◇ Enhance the management of chemical substances used in products. ◇ Develop technologies to foster replacement with substances with lower environmental impact. 	<p>Enhance the management of chemical substances with the International Material Data System (IMDS). Comply with the EU-ELV mercury-free directive executed on July 2012.</p>	<p>Promoted obtaining the IMDS data in wider area. Surely conducted mercury free with the new FORESTER.</p>	○	<p>Enhance the chemical substances management with the IMDS. Promote replacement with substances having lower environmental impact.</p>	
Clean Plants	Management and reduction in the use of substances of concern at manufacturing plants	Automobiles	<ul style="list-style-type: none"> ◆ Continue to reduce the release of PRTR substances to the environment. 	<ul style="list-style-type: none"> ◇ Identify and manage the chemical substances regulated by the PRTR law and reduce the use of these substances. 	<p>Continue to identify and manage chemical substances.</p>	<p>Confirmed 33 substances and continued management of those.</p>	○	<p>Increase the accuracy of identification and management of chemical substances, and enhance measures for reducing emission volume.</p>
			<ul style="list-style-type: none"> ◆ Further reduce per-unit VOC emissions (g/m²) from manufacturing lines. 	<ul style="list-style-type: none"> ◇ Reduce per-unit VOC emissions to below 45.5 g/m²*. (a 50.2% reduction from the FY2001 level) 	<p>Reduce per-unit VOC emissions to below 49.7 g/m².</p>	<p>The result was 49.5 g/m², and cleared the target.</p>	○	<p>Reduce per-unit VOC emissions to below 48.9 g/m².</p>
			<ul style="list-style-type: none"> ◆ Conduct activities to reduce leakages of hazardous substances to outside the premises, complaints, and non-compliance with the legal standards to zero. 	<ul style="list-style-type: none"> ◇ Conduct activities to reduce environmental incident, complaints, and non-compliance with the legal standards to zero. ◇ Set stricter voluntary standards and conduct small-risk elimination activities. 	<p>Reduced to zero the number of leakages of hazardous substances to the outside of premises, complaints, and non-compliance with the legal standards.</p>	<p>The number of leakages of hazardous substances to the outside premises, complaints, and non-compliance with the legal standards was zero. There were two incidents of waste fluid leakage at the Gunma Manufacturing Division, but both cases were handled within the premises and did not drain out the premises.</p>	○	<p>Continue to reduce to zero the number of leakages of hazardous substances to outside the premises, complaints, and non-compliance with the legal standards. Complete the corrective action for two incidents which occurred in FY2013, and share the process to promote prevention of a leakage incident to outside the premises.</p>

*The target value of VOC emissions has revised to 45.5g/m² from the previous 41.3g/m². It is because the VOC contained in the paint used in production lines were not included in the total.

[4] Environmental Management

Field	Item		Target/Initiative (FY2017)	FY2013			FY2014
				Target	Results	Evaluation	Target
Green Products	Research on traffic environments	Automobiles	<ul style="list-style-type: none"> ◆ Work further on Intelligent Transport System (ITS) and foster the development of traffic accident prevention technologies for a safer and more comfortable motorized society. ◇ Foster measures for the development of an Advanced Safety Vehicle (ASV). ◇ Foster measures for the development of a Driving Safety Support System (DSSS). 	Conduct activities according to the 5th Advanced Safety Vehicle (ASV) project. Promote the development and industry-wide feasibility study of the Cooperative Adaptive Cruise Control (CACC) system.	Continuously studied problems handled by each Working Group. Developed the basic logic of the CACC system, and evaluated its basic effect on a test course.	○	Promote activities according to the 5th AVS project. Promote development of the CACC system and the industry-wide field test. Conduct the field demonstration of the CACC system at the ITS World Congress Tokyo 2013.
			<ul style="list-style-type: none"> ◆ Foster the use of the advanced safe driving system and develop technologies to further sophisticate it. ◇ Develop more technologies for the expanded use of the "EyeSight (ver. 2)" advanced safe driving system. 	Increase models using the "EyeSight (ver. 2)" advanced safe driving system. Study and carry out the global expansion plan.	Promoted increasing of models using the "EyeSight (ver. 2)" advanced safe driving system according to the global expansion plan.	○	Globally expand the number of models using the "EyeSight (ver. 2)" advanced safe driving system, and promote measures for active safety assessment in each country.
	Promotion of lifecycle assessments	<ul style="list-style-type: none"> ◆ Disclose more lifecycle assessment (LCA) data. ◇ Disclose LCA data starting with cars that have undergone full model changes. 	Disclose LCA data of the BRZ and new FORESTER.	Disclosed LCA data of the BRZ in July, and new FORESTER in December.	○	Measure and disclose the LCA data of models at the timing of full model change.	
Improving Environmental Management	Green procurement activity		<ul style="list-style-type: none"> ◆ Request both domestic and overseas suppliers to establish and maintain environmental management systems. ◇ Request suppliers, including new supplies to maintain the systems. ◇ Review and revise the green procurement guidelines as necessary. 	Maintain the Environmental Management System (EMS). [Automobile, aerospace] [Automobile, aerospace] 345 companies (100%) [Aerospace] 79 companies (100%) [Industrial products] Japan: 133 companies (100%) Overseas: Prepare for the self-evaluation report	Maintained the EMS establishment.	○	Maintain the EMS.
		<ul style="list-style-type: none"> ◆ Reduce the use of substances of concern. ◇ Encourage suppliers to enhance the management and reduce the use of substances of concern in parts and materials. 	Promote the reduction of the use of substances of concern. [Automobile] 1. Survey all the substances contained in the foreign products. 2. Survey containing and switching of substances of concern. 3. Confirm compliance of the law related to reduction of substances of concern. [Aerospace] Reduce the use of substances of concern. [Industrial products] Continue to survey containing of substances of concern and decide the switching plan.	Promoted the reduction of the use of substances of concern. [Automobile] 1. Conducted the survey by IMDS. 2. Conducted the survey on EU-ELV directives. 3. Collected and checked a compliance confirmation document. [Aerospace] Continued not to procure regulated substances. [Industrial products] Conducted survey on the REACH regulations.	○	Promote the reduction of the use of substances of concern. [Automobile] 1. Survey all the substances contained in the foreign products. 2. Survey containing and switching of substances of concern. 3. Confirm compliance of the law related to reduction of substances of concern. [Aerospace] Continued not to procure regulated substances. [Industrial products] Determine the target value of substances of concern. [Industrial products] Continue to survey containing of substances of concern and decide the switching plan.	
		<ul style="list-style-type: none"> ◆ Set the supplier CSR guidelines and distribute the copies to suppliers. (Aerospace and Industrial Products Companies) ◇ Set the guidelines and increase suppliers' awareness of the guidelines. 	Promote the CSR procurement. [Automobile] Increase the awareness of the guideline. [Aerospace] Settle the guideline content. [Industrial products] Set the guideline and distribute it to suppliers.	Promoted the CSR procurement under the guideline. Concerning to the Aerospace business, the guideline was set in the second half of the year. [Aerospace] Set the guideline in the second half of the year. [Industrial products] Created the Supplier CSR Guideline and distributed to suppliers at the end of March.	○	Promote the CSR procurement under the guideline. Consider the creation of the company-wide guideline. [Aerospace] Spread use of the guideline. [Industrial products] Give the widest possible publicity to the guideline.	
	Support to dealers' environmental protection activities	Automobiles	<ul style="list-style-type: none"> ◇ Support all dealers in maintaining the "Eco Action 21" certification. ◇ Support the voluntary implementation of environmental measures, such as energy conservation and waste reduction measures under the "Eco Action 21". 	Make sure to continue the "Eco Action 21" certification.	Continued the "Eco Action 21" certification throughout all 44 dealers.	○	Support all dealers to continue the "Eco Action 21" certification.
Promotion of environmental protection activities, including biodiversity conservation in cooperation with local communities		<ul style="list-style-type: none"> ◆ Continue to participate in environmental events, make exchanges with local inhabitants, and hold plant tours. ◆ Continue to conduct cleanup and greening activities, including biodiversity conservation efforts. ◆ Give support to environmental organizations' activities. ◇ Proactively continue to hold plant tours and events within the premises, and give environmental classes. ◇ Continue cleanup activities around the premises. ◇ Foster greening activities in consideration of biodiversity conservation. 	Accept teachers to the OJT program. Continue SUBARU Community Exchange activities. Set and issue the biodiversity policy. Start identify the relationship between biodiversity and business activities.	Besides teacher education, conducted the visiting environmental classes and accepted students' company visit. Cleaned up Kanayama, Ota-City, at the event of SUBARU Community Exchange Association. Disclose the biodiversity policy and actions in the 2013 CSR Report. Consulted some companies about measures to understand relationship between biodiversity and business activities. Participated in the biodiversity seminars and collected latest information.	○	Continue to educate teachers, give visiting environmental classes, and accepting students' company visit. Disclose biodiversity measures in the 2013 CSR Report. Continue to identify the relationship between biodiversity and business activities.	

Field	Item	Target/Initiative (FY2017)	FY2013			FY2014	
			Target	Results	Evaluation	Target	
Improving Environmental Management	Disclosure of Environmental Information	◆ Timely disclose environmental information through regular publication of reports and other documents.	◇ Report about environmental activities in the CSR report and provide latest information at the website.	Issue the CSR report. Revise child programs at the visitor center.	Issued the CSR Report in September. Renewed visuals and Kids Book, and newly opened website for children. As a result, the comprehensive program for children combined with the existing factory story has established.	○	Issue the 2013 CSR Report. Newly open the Environment page on our website, and effectively send off various information.
		◆ Improve and enhance the content of environmental reports. (Compliance with the environmental reporting guidelines, inclusion of Group companies in the scope of reporting)	◇ Foster compliance with the environmental reporting guidelines and improve the content of environmental reporting.	Switch the environmental reporting guideline to its 2012 version from the 2007 version.	The version of environmental reporting guideline was switched to 2012 version. Disclosed LCA on environmental concern in the value chain.	○	Increase the rate of compliance with the 2012 guideline, and enrich the content of the report.
		◆ Participate in environmental fairs to publicize the company's environmental measures.	◇ Continue to participate in Eco-Products to widely publicize the company's eco-friendly products and services.	Participate in the Eco-Products Exhibition.	Did not participate in the Eco-Products Exhibition in 2012. (Instead, continuously took part in the Environmental Fair at Ota City.)	×	Participate in the Eco-Products Exhibition to widely appeal our environmental initiatives.
	Implementation of environmental education and awareness activities	◆ Continue environmental and social education under the internal education system.	◇ Hold more education, enlightenment and presentation events for the environment.	Continue to hold various kinds of education, and provide the information in and out the company.	Explain our environmental initiatives at various occasions and to the media. • Press Release June issue: Automobile Recycling Performance, ISO50001 certification acquisition at SIA, • In-house magazine "Shuhou" May issue: Becoming harder to comply with Environment-related laws. July issue: ISO50001 certification acquisition at SIA, Kanayama cleaning August issue: Introduction of co-generation system at Gunma Manufacturing Division.	○	Actively conduct educational plans and activities at various occasions.
		◆ Continuously enlighten employees through in-house magazines and other media.					
		◆ Continue to hold lectures and workplace meetings to present improvement examples.					
	Environmental Management System Establishment	◆ Maintain ISO 14001 certification for the integrated EMS at all the bases.	◇ Share the internal auditing and environmental education systems for more rational EMS activities.	Share the internal auditing between each site secretariat.	Shared the internal auditing eight times to uniform the quality level of the auditing.	○	Continuously conduct the shared internal auditing and uniform the style of auditing to raise the overall level.
		◆ Make continuous improvements to the EMS.	◇ Encourage more subsidiaries to acquire certification for the integrated EMS to level up the system.	Promote activities aiming for expansion of certification area.	Subaru Logistics Co., Ltd. has acquired the certification. All companies in the Domestic Affiliated Company Subcommittee has acquired the certification.	○	Promote activities to acquire the certification for the entire company group including members of the Domestic Affiliated Company Subcommittee.
		◆ Increase cooperation with subsidiaries to maintain and enhance the consolidated EMS.					