

# Toyota Boshoku 2020 Environmental Action Plan



Category	Action Item		Specific Action																
Establishment of Low Carbon Society	Production	1	Promote the development of innovative production technology with low CO <sub>2</sub> emissions	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> emissions from new processes by 30%, promote the development of innovative production technology</li> <li>Downsize processes, reduce transfer distance, and minimize BOM</li> <li>Reduce the amount of energy used through the development of next generation molding, decoration &amp; assembly methods</li> <li>Promote the reduction of CO<sub>2</sub> emissions through the introduction of cogeneration equipment</li> </ul>															
		2	Promote the use of renewable energy suitable for individual countries and regions	<ul style="list-style-type: none"> <li>Expand the areas to introduce renewable energies, considering the characteristics of individual countries and regions (Economic efficiency/Reduction of CO<sub>2</sub> emissions)</li> </ul>															
		3	Study the possibility of utilizing next generation energy within the company, and define the mid- to long-term outlook for the utilization of such energy	<ul style="list-style-type: none"> <li>Study the possibility of utilizing next generation energy for processes and motors, and clarify the outlook for the utilization of such energy</li> </ul>															
		4	Minimize the CO <sub>2</sub> emissions in daily production activities	<ul style="list-style-type: none"> <li>Thoroughly eliminate waste in energy use through the pursuit of improved productivity and energy Just In Time activities</li> <li>Reduce CO<sub>2</sub> by completing investment zero items decisively, and promote and maintain the activity</li> <li>Actively replace low-efficiency equipment with high-efficiency equipment</li> <li>Promote the understanding and reduction of the energy basic unit for products &amp; processes</li> </ul>															
	Product	5	Product development that contributes to top-level fuel efficiency	<ul style="list-style-type: none"> <li>Reduced product weight (Seat, interior, filter/power train)</li> <li>Heat management (Reduced air-conditioning load through the development of heat insulation materials)</li> </ul>															
		6	Promote product development to support next generation automobiles	<ul style="list-style-type: none"> <li>Development of high efficiency technology for filters and power trains ⇒ Increase the mass production of HV motor components and FC components</li> </ul>															
		7	Develop and commercialize products using plant-derived materials	<ul style="list-style-type: none"> <li>Utilization of plant-derived materials for automotive parts</li> </ul>															
	<p>【Target regarding to No.1~7】</p> <table border="1"> <thead> <tr> <th>Aria</th> <th>Reference Year</th> <th>Unit</th> <th>Target of 2020</th> </tr> </thead> <tbody> <tr> <td>Global</td> <td>FY2010</td> <td>Basic unit : t-CO<sub>2</sub> per unit produced</td> <td>Reduce 15%</td> </tr> <tr> <td rowspan="2">Toyota Boshoku (Non-Consolidated)</td> <td>FY2008</td> <td>Basic unit : t-CO<sub>2</sub> per unit produced</td> <td>Reduce 17%</td> </tr> <tr> <td>FY2008</td> <td>Emission volume</td> <td>Reduce 17%</td> </tr> </tbody> </table>				Aria	Reference Year	Unit	Target of 2020	Global	FY2010	Basic unit : t-CO <sub>2</sub> per unit produced	Reduce 15%	Toyota Boshoku (Non-Consolidated)	FY2008	Basic unit : t-CO <sub>2</sub> per unit produced	Reduce 17%	FY2008	Emission volume	Reduce 17%
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Logistics	8	Reduce CO <sub>2</sub> emissions through the pursuit of efficient logistics activities	<ul style="list-style-type: none"> <li>Reduce the CO<sub>2</sub> emissions through improved transportation efficiency and further improvement of activities with low fuel efficiency</li> </ul> <table border="1"> <thead> <tr> <th>Aria</th> <th>Reference Year</th> <th>Unit</th> <th>Target of 2020</th> </tr> </thead> <tbody> <tr> <td>Toyota Boshoku (Non-Consolidated)</td> <td>FY2010</td> <td>Emission volume</td> <td>Reduce 10%</td> </tr> </tbody> </table>	Aria	Reference Year	Unit	Target of 2020	Toyota Boshoku (Non-Consolidated)	FY2010	Emission volume	Reduce 10%								
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Establishment of Recycling-based Society	Production	9	Reduce the amount of water used in production activities and wastewater																		
	Product	10	Reduce the use of fossil fuel resources through the utilization of plant-derived materials																		
	Production	11	Reduce the amount of waste generated in production activities and promote the effective use of resources																		
<ul style="list-style-type: none"> <li>•Promote innovative activities including line modification with downsizing (Development of processes with minimum consumption)</li> <li>•Continue promoting water usage reduction activities in consideration of the water situation in individual countries and areas. <ul style="list-style-type: none"> <li>•Reduce the water consumption by eliminating waste and increasing efficiency</li> <li>•Reduce the amount of water used by recycling</li> </ul> </li> </ul>																					
<ul style="list-style-type: none"> <li>•Promote the use of recycled materials &amp; drive further recycling</li> <li>•Promote the development &amp; design enabling effective use of resources through the further utilization of plant-derived materials</li> </ul>																					
<ul style="list-style-type: none"> <li>•Development of production technology to generate less waste</li> <li>•Promote the minimization of waste through daily Kaizen activities</li> <li>•Promote the production of RSPP* effectively utilizing resources (waste)</li> </ul> <p>*<b>R</b>ecycled <b>S</b>ound-<b>P</b>roofing <b>P</b>roducts</p>																					
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*1 Definition of zero direct landfill waste: Rate of direct landfill waste is less than 1%																					
Establishment of Symbiotic Society	Logistics	12	Reduce the amount of packaging materials used in logistics activities and effective use of resources																		
	General	13	Promote the enviromental social contribution programs through forest-creating activities / forest conservation activities																		
<ul style="list-style-type: none"> <li>•Promote the use of returnable containers and lighter-weight packaging materials. Further promote the reduction of packaging materials used</li> </ul> <table border="1"> <thead> <tr> <th>Aria</th> <th>Reference Year</th> <th>Unit</th> <th>Target of 2020</th> </tr> </thead> <tbody> <tr> <td>Toyota Boshoku (Non-Consolidated)</td> <td>FY2008</td> <td>Usage</td> <td>Reduce 12%</td> </tr> </tbody> </table>				Aria	Reference Year	Unit	Target of 2020	Toyota Boshoku (Non-Consolidated)	FY2008	Usage	Reduce 12%										
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<ul style="list-style-type: none"> <li>•Promote strengthening of forest-creating and greening activities through social contribution activities [Tree planting number 170K trees (Cumulative No.: 500K trees)]</li> <li>•Promote forestation activities in collaboration with NPOs</li> <li>•Promote the awareness-raising activity and education for "forest &amp; nature conservation"</li> </ul>																					

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Environmental Management	General	14 Promote the reinforcement of the consolidated environmental management	<ul style="list-style-type: none"> <li>• Build the structure to promote 2050 Environmental Vision and develop a scenario/road map to achieve the targets</li> <li>• Toward 2050, promote the development of products, materials and methods and clarify the outlook for such development</li> <li>• Strengthen the environmental burden reduction activities through the enhancement of the activities of the Environmental Committee</li> <li>• Further promote continuous improvement through the enhanced operations of the environmental management system</li> </ul>								
		15 Strengthen the chemical substance management system	<ul style="list-style-type: none"> <li>• Expand and strengthen the control of chemical substances contained in products</li> <li>• Promote the replacement with substances with less environmental burden through the development of alternative technologies</li> <li>• Establish a control structure for processed chemicals including raw materials and indirect materials</li> </ul>								
		16 Reduce the VOC* <sup>2</sup> emissions from production activities	<ul style="list-style-type: none"> <li>• Promote continuous reduction of VOC emissions through daily improvement activities</li> <li>• Reduce the amount of waste chemical substances through the introduction of VOC treatment equipment and the development of processing methods</li> </ul> <table border="1" data-bbox="826 1205 1528 1294"> <thead> <tr> <th data-bbox="826 1205 1058 1234">Aria</th> <th data-bbox="1058 1205 1233 1234">Reference Year</th> <th data-bbox="1233 1205 1337 1234">Unit</th> <th data-bbox="1337 1205 1528 1234">Target of 2020</th> </tr> </thead> <tbody> <tr> <td data-bbox="826 1234 1058 1294">Toyota Boshoku (Non-Consolidated)</td> <td data-bbox="1058 1234 1233 1294">FY2010</td> <td data-bbox="1233 1234 1337 1294">Emission volume</td> <td data-bbox="1337 1234 1528 1294">Reduce 10%</td> </tr> </tbody> </table> <p data-bbox="432 1263 810 1294">*2 VOC : <u>V</u>olatile <u>O</u>rganic <u>C</u>ompounds</p>	Aria	Reference Year	Unit	Target of 2020	Toyota Boshoku (Non-Consolidated)	FY2010	Emission volume	Reduce 10%
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		17 Promote environmental activities in collaboration with business partners (suppliers)	<ul style="list-style-type: none"> <li>• Strengthen the cooperation with suppliers to promote environmental activities</li> <li>• Promote collaboration to establish a structure to work on climate change, water scarcity, resource recycling and environmental symbiosis</li> </ul>								
		18 Promote the environmental management in product development	<ul style="list-style-type: none"> <li>• Establish a target management system of Life Cycle and promote the environmental burden reduction activities in the development &amp; design phases</li> </ul>								
		19 Strengthen environmental education to pass the environmental conservation activities on to future generations	<ul style="list-style-type: none"> <li>• Organize "Environmental seminars" in collaboration with NPO to spread the activities</li> <li>• Continue to provide visiting education programs (Tailored education programs to meet the demand of local schools)</li> </ul>								
20 Enhance communication with stakeholders through active disclosure of environmental information	<ul style="list-style-type: none"> <li>• Communicate activity information to all the employees through internal newsletters/briefing sessions</li> <li>• Further enhance the provision of environmental information through Toyota Boshoku Report and other means</li> <li>• Disclose information to the environmental assessment agency proactively and enhance communication activities</li> </ul>										